# WEST Search History

Hide Items | Restore | Clear | Cancel

DATE: Tuesday, February 20, 2007

| Hide? | Set Name | Query | Hit Count |
|---|---|---|---|
| | *DB=USPT,DWPI; PLUR=YES; OP=OR* | | |
| ☐ | L10 | l1 and ((polyoxyethylene or POE) adj sorbitan adj ester) | 12 |
| ☐ | L9 | l1 and ((extract or component) same ((polyoxyethylene or POE) adj sorbitan adj ester)) | 1 |
| ☐ | L8 | l1 and (extract or component) | 1214 |
| ☐ | L7 | l1 same leukemia | 2 |
| ☐ | L6 | l1 and leukemia | 56 |
| ☐ | L5 | L3 and ((polyoxyethylene or POE) adj sorbitan) | 8 |
| ☐ | L4 | L3 and sorbitan | 15 |
| ☐ | L3 | L1 same (extract or component) | 334 |
| ☐ | L2 | L1 (s) (extract or component) | 9837447 |
| ☐ | L1 | canaliculus or edulis or mussel | 2540 |

END OF SEARCH HISTORY

| | |
|---|---|
| AN | 10721676 IFIPAT;IFIUDB;IFICDB |
| TITLE: | METHODS FOR TREATING CANCER USING PERNA CANALICULUS COMPONENT(S) AND EXTRACTS OF PERNA CANALICULUS; ADMINISTERING PERNA CANALICULUS AND/OR MYTILUS EDULIS MUSSEL COMPONENT WHICH EXHIBITS CYTOTOXICITY TO MALIGNANT TUMOR CELLS |
| INVENTOR(S): | Kendall; Roger V., Westford, VT, US<br>Lawson; John, Clemson, SC, US |
| PATENT ASSIGNEE(S): | Unassigned |
| PATENT ASSIGNEE PROBABLE: | Food Science Corp (Probable) |
| AGENT: | MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON BLVD., SUITE 1400, ARLINGTON, VA, 22201, US |

| | NUMBER | PK | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 2004228926 | A1 | 20041118 |
| APPLICATION INFORMATION: | US 2004-800016 | | 20040315 |

| | NUMBER | DATE |
|---|---|---|
| PRIORITY APPLN. INFO.: | US 2003-454340P | 20030314 (Provisional) |
| FAMILY INFORMATION: | US 2004228926 | 20041118 |
| DOCUMENT TYPE: | Utility<br>Patent Application - First Publication | |
| FILE SEGMENT: | CHEMICAL<br>APPLICATION | |

PARENT CASE DATA:

This application claims the benefit of the filing date of U.S. Provisional Application Serial No. 60/454,340 filed Mar. 14, 2003. The invention includes the use of at least one component derived from Perna canaliculus to treat cancer and/or cancerous tumors in man or animals. The invention also includes novel compositions of extracts from Perna ***canaliculus*** , methods of making these novel compositions, and the use of these compositions in the described methods. Components and extracts of Blue mussels, i.e., Mytilus edulis, can analogously be provided and used according to the invention and all references made herein to Perna ***canaliculus*** or PCE should be understood to include Mytilus edulis and components or extracts thereof.

NUMBER OF CLAIMS: 26 15 Figure(s).

DESCRIPTION OF FIGURES:

FIG. 1. 50% inhibition of Cox-1 is seen between the 1:200 and 1:400 dilutions of the Tween extract and between the 1:10 and 1:100 dilutions of the Glycogen extract.

FIG. 2. 50% inhibition of Cox-2 is seen between the 1:200 and 1:400 dilutions of the Tween extract and between the 1:10 and 1:100 dilutions of the Glycogen extract.

FIG. 3. Significant inhibition of tumors is seen at the 1:10 and 1:00 dilutions of Tween extract.

FIG. 4. Significant inhibition of potato tumors is seen with the 1:10 concentration of the Glycogen extract.

FIG. 5. The fraction of Tween extract retained by the 100K filter shows significant inhibition of potato tumors at both the 1:10 and 1:100 concentrations.

FIG. 6. The pH of the Tween extract is altered using 10N NaOH and 10N HCl. Significant inhibition of potato tumors occurs at both the 1:10 and 1:100 concentrations of the pH 2>100 K sample, at the 1:10 concentration of the pH 2 100K-10K sample, at the 1:10 and 1:100 concentrations of the pH 2<10K sample, and at the 1:10 and 1:100 concentrations of the pH 9>100 K sample.

FIG. 7. The pH of the Tween extract is altered using 1 N NaOH before filtering. These extracts are tested at a concentration of 1:10.

Significant inhibition of potato tumors is seen at the pH 9>100 K sample, the pH 8>100 K sample, and the pH 7>100K sample.
FIG. 8. The Tween extract is treated with Pronase and Proteinase K independently and incubated at 37 degrees C for time periods ranging from 0-48 hours. The enzyme activity is halted by incubating tubes at 80 degrees C for 15 minutes. Tx is untreated full strength Tween extract that is incubated along with the other samples for 48 hours. Samples are tested at a concentration of 1:10. No significant change in activity is seen in any sample upon treatment with either proteolytic enzyme.
FIG. 9. Significant inhibition of tumors is seen with the >300K and 300K-100K fractions of the Tween extract. Significant inhibition of tumors is seen with the >300K fraction of the Glycogen extract. Campto is 0.1 ppm Camptothecin.
FIG. 10. The fraction of glycogen extract retained by the 100K filter shows significant inhibition of potato tumors at both the 1:10 and 1:100 concentrations. The fraction of glycogen extract that passed through the 100K filter but was retained by the 30K filter shows slightly significant inhibition of potato tumors at both the 1:10 and 1:100 concentrations.
FIG. 11. The pH of the glycogen extract is altered using 10 N NaOH and 10 N HCl before filtering. Significant inhibition of potato tumors is seen at the 1:10 and 1:100 concentrations of the pH 2>100 K sample, at the 1:10 and 1:100 concentrations of the pH 9>100 K sample, and at the 1:10 concentration of the pH 9<10K sample
FIG. 12. The pH of the glycogen extract is altered using 1 N NaOH before filtering. These extracts are tested at a concentration of 1:10. Significant inhibition of potato tumors is seen at the pH 9>100 K sample, the pH 9 100K-10K sample, the pH 8>100 K sample, the pH 7>100K sample, and the pH 7 100K-10K sample.
FIG. 13. The glycogen extract is treated with Pronase and Proteinase K independently and incubated at 37 degrees C for time periods ranging from 0-48 hours. The enzyme activity is halted by incubating tubes at 80 degrees C for 15 minutes. Gx is untreated full strength glycogen extract that was incubated along with the other samples for 48 hours. Samples were tested at a concentration of 1:10. No significant change in activity is seen in any sample upon treatment with either proteolytic enzyme.
FIG. 14. Pena extracts at the indicated % concentrations are shown to inhibit cervical carcinoma (SiHa) cells.
FIG. 15. Perna extracts at the indicated % concentrations are shown to inhibit osteocarcinoma cells (MG-63).

AB Described are methods for administering at least one component derived from Perna canaliculus or Mytilus edulis, particularly as an extract, to treat cancer and cancerous tumors in man or animals. Also described are novel compositions of extracts from Perna canaliculus or Mytilus edulis, methods of making these novel compositions, and the use of these compositions in the described methods.

CLMN 26 15 Figure(s).

FIG. 1. 50% inhibition of Cox-1 is seen between the 1:200 and 1:400 dilutions of the Tween extract and between the 1:10 and 1:100 dilutions of the Glycogen extract.
FIG. 2. 50% inhibition of Cox-2 is seen between the 1:200 and 1:400 dilutions of the Tween extract and between the 1:10 and 1:100 dilutions of the Glycogen extract.
FIG. 3. Significant inhibition of tumors is seen at the 1:10 and 1:00 dilutions of Tween extract.
FIG. 4. Significant inhibition of potato tumors is seen with the 1:10 concentration of the Glycogen extract.
FIG. 5. The fraction of Tween extract retained by the 100K filter shows significant inhibition of potato tumors at both the 1:10 and 1:100 concentrations.
FIG. 6. The pH of the Tween extract is altered using 10N NaOH and 10N HCl. Significant inhibition of potato tumors occurs at both the 1:10 and 1:100 concentrations of the pH 2>100 K sample, at the 1:10 concentration of the pH 2 100K-10K sample, at the 1:10 and 1:100 concentrations of the pH 2<10K sample, and at the 1:10 and 1:100

concentrations of the pH 9>100 K sample.

FIG. 7. The pH of the Tween extract is altered using 1 N NaOH before filtering. These extracts are tested at a concentration of 1:10. Significant inhibition of potato tumors is seen at the pH 9>100 K sample, the pH 8>100 K sample, and the pH 7>100K sample.

FIG. 8. The Tween extract is treated with Pronase and Proteinase K independently and incubated at 37 degrees C for time periods ranging from 0-48 hours. The enzyme activity is halted by incubating tubes at 80 degrees C for 15 minutes. Tx is untreated full strength Tween extract that is incubated along with the other samples for 48 hours. Samples are tested at a concentration of 1:10. No significant change in activity is seen in any sample upon treatment with either proteolytic enzyme.

FIG. 9. Significant inhibition of tumors is seen with the >300K and 300K-100K fractions of the Tween extract. Significant inhibition of tumors is seen with the >300K fraction of the Glycogen extract. Campto is 0.1 ppm Camptothecin.

FIG. 10. The fraction of glycogen extract retained by the 100K filter shows significant inhibition of potato tumors at both the 1:10 and 1:100 concentrations. The fraction of glycogen extract that passed through the 100K filter but was retained by the 30K filter shows slightly significant inhibition of potato tumors at both the 1:10 and 1:100 concentrations.

FIG. 11. The pH of the glycogen extract is altered using 10 N NaOH and 10 N HCl before filtering. Significant inhibition of potato tumors is seen at the 1:10 and 1:100 concentrations of the pH 2>100 K sample, at the 1:10 and 1:100 concentrations of the pH 9>100 K sample, and at the 1:10 concentration of the pH 9<10K sample

FIG. 12. The pH of the glycogen extract is altered using 1 N NaOH before filtering. These extracts are tested at a concentration of 1:10. Significant inhibition of potato tumors is seen at the pH 9>100 K sample, the pH 9 100K-10K sample, the pH 8>100 K sample, the pH 7>100K sample, and the pH 7 100K-10K sample.

FIG. 13. The glycogen extract is treated with Pronase and Proteinase K independently and incubated at 37 degrees C for time periods ranging from 0-48 hours. The enzyme activity is halted by incubating tubes at 80 degrees C for 15 minutes. Gx is untreated full strength glycogen extract that was incubated along with the other samples for 48 hours. Samples were tested at a concentration of 1:10. No significant change in activity is seen in any sample upon treatment with either proteolytic enzyme.

FIG. 14. Pena extracts at the indicated % concentrations are shown to inhibit cervical carcinoma (SiHa) cells.

FIG. 15. Perna extracts at the indicated % concentrations are shown to inhibit osteocarcinoma cells (MG-63).

L5 ANSWER 2 OF 2 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

ACCESSION NUMBER: 2004-718717 [70] WPIDS
DOC. NO. CPI: C2004-253220 [70]
TITLE: Use of a component derived from Perna canaliculus or mytilus edulis mussel for treating cancer in mammals
DERWENT CLASS: A96; B04
INVENTOR: KENDALL R V; LAWSON J
PATENT ASSIGNEE: (FOOD-N) FOODSCIENCE CORP; (KEND-I) KENDALL R V; (LAWS-I) LAWSON J
COUNTRY COUNT: 107

PATENT INFO ABBR.:

| PATENT NO | KIND | DATE | WEEK | LA | PG | MAIN IPC |
|---|---|---|---|---|---|---|
| WO 2004082614 | A2 | 20040930 | (200470)* | EN | 33[15] | |
| US 20040228926 | A1 | 20041118 | (200477) | EN | | |

EP 1603405 A2 20051214 (200582) EN
AU 2004222337 A1 20040930 (200624) EN
JP 2006520389 W 20060907 (200660) JA 18

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION | DATE |
|---|---|---|---|
| WO 2004082614 A2 | | WO 2004-US7795 | 20040315 |
| US 20040228926 A1 | Provisional | US 2003-454340P | 20030314 |
| AU 2004222337 A1 | | AU 2004-222337 | 20040315 |
| EP 1603405 A2 | | EP 2004-720785 | 20040315 |
| US 20040228926 A1 | | US 2004-800016 | 20040315 |
| EP 1603405 A2 | | WO 2004-US7795 | 20040315 |
| JP 2006520389 W | | WO 2004-US7795 | 20040315 |
| JP 2006520389 W | | JP 2006-507178 | 20040315 |

FILING DETAILS:

| PATENT NO | KIND | | PATENT NO | |
|---|---|---|---|---|
| EP 1603405 | A2 | Based on | WO 2004082614 | A |
| AU 2004222337 | A1 | Based on | WO 2004082614 | A |
| JP 2006520389 | W | Based on | WO 2004082614 | A |

PRIORITY APPLN. INFO: US 2003-454340P 20030314
US 2004-800016 20040315
AN 2004-718717 [70] WPIDS
AB WO 2004082614 A2 UPAB: 20060203
NOVELTY - Treatment of malignant tumor cancer involves the administration of a component (I) from Perna canaliculus or Mylitus edulis mussel.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) a composition (C1) comprising an extract of freeze-dried-ground whole Perna canaliculus or Mytilus edulis mussel extracted with a polyoxyethylene sorbitan ester, non-ionic surfactant (A); and

(2) preparing (C1) involving agitating an aqueous solution of the ground freeze-dried whole mussel with (A), followed by centrifuging the mixture, decanting one or more time to obtain the liquid portion as the extract and optionally filtering one or more times to remove small solids remaining in the liquid portion extract.

ACTIVITY - Cytostatic.

MECHANISM OF ACTION - Cancer cell growth inhibitor; Cyclooxygenase (COX-1 and COX-2) inhibitor.

USE - For treating malignant tumor cancer such as leukemia, osteosarcoma, cervical cancer, kidney tumor, monocytic leukemia, prostratic cancer, estrogen-dependent/non-estrogen dependent breast cancer, melanoma or bladder cancer in humans (claimed) and other animals.

ADVANTAGE - The extracts showed potent and a very broad anti-cancer activity without causing any damage to the normal cells. They have a desired pH range and have good efficacy even when exposed to the acidic environment of the gastrointestinal tract.

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(FILE 'HOME' ENTERED AT 09:21:05 ON 20 FEB 2007)

FILE 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOENG, BIOSIS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DGENE, DISSABS, DRUGB, DRUGMONOG2,

DRUGU, EMBAL, EMBASE, ESBIOBASE, FOMAD, ...' ENTERED AT 09:21:15 ON 20 FEB 2007

| | | |
|---|---|---|
| L1 | 1256 | S CANALICULUS AND MUSSEL |
| L2 | 263 | S L1 AND EXTRACT |
| L3 | 3 | S L2 AND SORBITAN |
| L4 | 3 | S L3 AND POLYOXYETHYLENE |
| L5 | 2 | DUP REM L4 (1 DUPLICATE REMOVED) |

PRIORITY APPLN. INFO.: US 2003-454340P 20030314 (Provisional)
FAMILY INFORMATION: US 2004228926 20041118
DOCUMENT TYPE: Utility
Patent Application - First Publication
FILE SEGMENT: CHEMICAL
APPLICATION

PARENT CASE DATA:

This application claims the benefit of the filing date of U.S. Provisional Application Serial No. 60/454,340 filed Mar. 14, 2003. The invention includes the use of at least one component derived from Perna ***canaliculus*** to treat cancer and/or cancerous tumors in man or animals. The invention also includes novel compositions of extracts from ***Perna*** canaliculus, methods of making these novel compositions, and the use of these compositions in the described methods. Components and extracts of Blue mussels, i.e., Mytilus edulis, can analogously be provided and used according to the invention and all references made herein to Perna canaliculus or PCE should be understood to include Mytilus edulis and components or extracts thereof.

NUMBER OF CLAIMS: 26 15 Figure(s).

DESCRIPTION OF FIGURES:

FIG. 1. 50% inhibition of Cox-1 is seen between the 1:200 and 1:400 dilutions of the Tween extract and between the 1:10 and 1:100 dilutions of the Glycogen extract.

FIG. 2. 50% inhibition of Cox-2 is seen between the 1:200 and 1:400 dilutions of the Tween extract and between the 1:10 and 1:100 dilutions of the Glycogen extract.

FIG. 3. Significant inhibition of tumors is seen at the 1:10 and 1:00 dilutions of Tween extract.

FIG. 4. Significant inhibition of potato tumors is seen with the 1:10 concentration of the Glycogen extract.

FIG. 5. The fraction of Tween extract retained by the 100K filter shows significant inhibition of potato tumors at both the 1:10 and 1:100 concentrations.

FIG. 6. The pH of the Tween extract is altered using 10N NaOH and 10N HCl. Significant inhibition of potato tumors occurs at both the 1:10 and 1:100 concentrations of the pH 2>100 K sample, at the 1:10 concentration of the pH 2 100K-10K sample, at the 1:10 and 1:100 concentrations of the pH 2<10K sample, and at the 1:10 and 1:100 concentrations of the pH 9>100 K sample.

FIG. 7. The pH of the Tween extract is altered using 1 N NaOH before filtering. These extracts are tested at a concentration of 1:10. Significant inhibition of potato tumors is seen at the pH 9>100 K sample, the pH 8>100 K sample, and the pH 7>100K sample.

FIG. 8. The Tween extract is treated with Pronase and Proteinase K independently and incubated at 37 degrees C for time periods ranging from 0-48 hours. The enzyme activity is halted by incubating tubes at 80 degrees C for 15 minutes. Tx is untreated full strength Tween extract that is incubated along with the other samples for 48 hours. Samples are tested at a concentration of 1:10. No significant change in activity is seen in any sample upon treatment with either proteolytic enzyme.

FIG. 9. Significant inhibition of tumors is seen with the >300K and 300K-100K fractions of the Tween extract. Significant inhibition of tumors is seen with the >300K fraction of the Glycogen extract. Campto is 0.1 ppm Camptothecin.

FIG. 10. The fraction of glycogen extract retained by the 100K filter shows significant inhibition of potato tumors at both the 1:10 and 1:100 concentrations. The fraction of glycogen extract that passed through the 100K filter but was retained by the 30K filter shows slightly significant inhibition of potato tumors at both the 1:10 and 1:100 concentrations.

FIG. 11. The pH of the glycogen extract is altered using 10 N NaOH and 10 N HCl before filtering. Significant inhibition of potato tumors is seen

at the 1:10 and 1:100 concentrations of the pH 2>100 K sample, at the 1:10 and 1:100 concentrations of the pH 9>100 K sample, and at the 1:10 concentration of the pH 9<10K sample

FIG. 12. The pH of the glycogen extract is altered using 1 N NaOH before filtering. These extracts are tested at a concentration of 1:10. Significant inhibition of potato tumors is seen at the pH 9>100 K sample, the pH 9 100K-10K sample, the pH 8>100 K sample, the pH 7>100K sample, and the pH 7 100K-10K sample.

FIG. 13. The glycogen extract is treated with Pronase and Proteinase K independently and incubated at 37 degrees C for time periods ranging from 0-48 hours. The enzyme activity is halted by incubating tubes at 80 degrees C for 15 minutes. Gx is untreated full strength glycogen extract that was incubated along with the other samples for 48 hours. Samples were tested at a concentration of 1:10. No significant change in activity is seen in any sample upon treatment with either proteolytic enzyme.

FIG. 14. Pena extracts at the indicated % concentrations are shown to inhibit cervical carcinoma (SiHa) cells.

FIG. 15. Perna extracts at the indicated % concentrations are shown to inhibit osteocarcinoma cells (MG-63).

AB Described are methods for administering at least one component derived from Perna canaliculus or Mytilus edulis, particularly as an extract, to treat cancer and cancerous tumors in man or animals. Also described are novel compositions of extracts from Perna canaliculus or Mytilus edulis, methods of making these novel compositions, and the use of these compositions in the described methods.

CLMN 26 15 Figure(s).

FIG. 1. 50% inhibition of Cox-1 is seen between the 1:200 and 1:400 dilutions of the Tween extract and between the 1:10 and 1:100 dilutions of the Glycogen extract.

FIG. 2. 50% inhibition of Cox-2 is seen between the 1:200 and 1:400 dilutions of the Tween extract and between the 1:10 and 1:100 dilutions of the Glycogen extract.

FIG. 3. Significant inhibition of tumors is seen at the 1:10 and 1:00 dilutions of Tween extract.

FIG. 4. Significant inhibition of potato tumors is seen with the 1:10 concentration of the Glycogen extract.

FIG. 5. The fraction of Tween extract retained by the 100K filter shows significant inhibition of potato tumors at both the 1:10 and 1:100 concentrations.

FIG. 6. The pH of the Tween extract is altered using 10N NaOH and 10N HCl. Significant inhibition of potato tumors occurs at both the 1:10 and 1:100 concentrations of the pH 2>100 K sample, at the 1:10 concentration of the pH 2 100K-10K sample, at the 1:10 and 1:100 concentrations of the pH 2<10K sample, and at the 1:10 and 1:100 concentrations of the pH 9>100 K sample.

FIG. 7. The pH of the Tween extract is altered using 1 N NaOH before filtering. These extracts are tested at a concentration of 1:10. Significant inhibition of potato tumors is seen at the pH 9>100 K sample, the pH 8>100 K sample, and the pH 7>100K sample.

FIG. 8. The Tween extract is treated with Pronase and Proteinase K independently and incubated at 37 degrees C for time periods ranging from 0-48 hours. The enzyme activity is halted by incubating tubes at 80 degrees C for 15 minutes. Tx is untreated full strength Tween extract that is incubated along with the other samples for 48 hours. Samples are tested at a concentration of 1:10. No significant change in activity is seen in any sample upon treatment with either proteolytic enzyme.

FIG. 9. Significant inhibition of tumors is seen with the >300K and 300K-100K fractions of the Tween extract. Significant inhibition of tumors is seen with the >300K fraction of the Glycogen extract. Campto is 0.1 ppm Camptothecin.

FIG. 10. The fraction of glycogen extract retained by the 100K filter shows significant inhibition of potato tumors at both the 1:10 and

1:100 concentrations. The fraction of glycogen extract that passed through the 100K filter but was retained by the 30K filter shows slightly significant inhibition of potato tumors at both the 1:10 and 1:100 concentrations.

FIG. 11. The pH of the glycogen extract is altered using 10 N NaOH and 10 N HCl before filtering. Significant inhibition of potato tumors is seen at the 1:10 and 1:100 concentrations of the pH 2>100 K sample, at the 1:10 and 1:100 concentrations of the pH 9>100 K sample, and at the 1:10 concentration of the pH 9<10K sample

FIG. 12. The pH of the glycogen extract is altered using 1 N NaOH before filtering. These extracts are tested at a concentration of 1:10. Significant inhibition of potato tumors is seen at the pH 9>100 K sample, the pH 9 100K-10K sample, the pH 8>100 K sample, the pH 7>100K sample, and the pH 7 100K-10K sample.

FIG. 13. The glycogen extract is treated with Pronase and Proteinase K independently and incubated at 37 degrees C for time periods ranging from 0-48 hours. The enzyme activity is halted by incubating tubes at 80 degrees C for 15 minutes. Gx is untreated full strength glycogen extract that was incubated along with the other samples for 48 hours. Samples were tested at a concentration of 1:10. No significant change in activity is seen in any sample upon treatment with either proteolytic enzyme.

FIG. 14. Pena extracts at the indicated % concentrations are shown to inhibit cervical carcinoma (SiHa) cells.

FIG. 15. Perna extracts at the indicated % concentrations are shown to inhibit osteocarcinoma cells (MG-63).

L2 ANSWER 2 OF 2 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

ACCESSION NUMBER: 2004-718717 [70] WPIDS
DOC. NO. CPI: C2004-253220 [70]
TITLE: Use of a component derived from Perna canaliculus or mytilus edulis mussel for treating cancer in mammals
DERWENT CLASS: A96; B04
INVENTOR: KENDALL R V; LAWSON J
PATENT ASSIGNEE: (FOOD-N) FOODSCIENCE CORP; (KEND-I) KENDALL R V; (LAWS-I) LAWSON J
COUNTRY COUNT: 107

PATENT INFO ABBR.:

| PATENT NO | KIND | DATE | WEEK | LA | PG | MAIN IPC |
|---|---|---|---|---|---|---|
| WO 2004082614 | A2 | 20040930 | (200470)* | EN | 33[15] | |
| US 20040228926 | A1 | 20041118 | (200477) | EN | | |
| EP 1603405 | A2 | 20051214 | (200582) | EN | | |
| AU 2004222337 | A1 | 20040930 | (200624) | EN | | |
| JP 2006520389 | W | 20060907 | (200660) | JA | 18 | |

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION | DATE |
|---|---|---|---|
| WO 2004082614 | A2 | WO 2004-US7795 | 20040315 |
| US 20040228926 | A1 Provisional | US 2003-454340P | 20030314 |
| AU 2004222337 | A1 | AU 2004-222337 | 20040315 |
| EP 1603405 | A2 | EP 2004-720785 | 20040315 |
| US 20040228926 | A1 | US 2004-800016 | 20040315 |
| EP 1603405 | A2 | WO 2004-US7795 | 20040315 |
| JP 2006520389 | W | WO 2004-US7795 | 20040315 |
| JP 2006520389 | W | JP 2006-507178 | 20040315 |

FILING DETAILS:

| PATENT NO | KIND | | PATENT NO | |
|---|---|---|---|---|
| EP 1603405 | A2 | Based on | WO 2004082614 | A |
| AU 2004222337 | A1 | Based on | WO 2004082614 | A |
| JP 2006520389 | W | Based on | WO 2004082614 | A |

PRIORITY APPLN. INFO: US 2003-454340P 20030314
US 2004-800016 20040315

AN 2004-718717 [70] WPIDS

AB WO 2004082614 A2 UPAB: 20060203

NOVELTY - Treatment of malignant tumor cancer involves the administration of a component (I) from Perna canaliculus or Mylitus edulis mussel.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) a composition (C1) comprising an extract of freeze-dried-ground whole Perna canaliculus or Mytilus edulis mussel extracted with a polyoxyethylene sorbitan ester, non-ionic surfactant (A); and

(2) preparing (C1) involving agitating an aqueous solution of the ground freeze-dried whole mussel with (A), followed by centrifuging the mixture, decanting one or more time to obtain the liquid portion as the extract and optionally filtering one or more times to remove small solids remaining in the liquid portion extract.

ACTIVITY - Cytostatic.

MECHANISM OF ACTION - Cancer cell growth inhibitor; Cyclooxygenase (COX-1 and COX-2) inhibitor.

USE - For treating malignant tumor cancer such as leukemia, osteosarcoma, cervical cancer, kidney tumor, monocytic leukemia, prostratic cancer, estrogen-dependent/non-estrogen dependent breast cancer, melanoma or bladder cancer in humans (claimed) and other animals.

ADVANTAGE - The extracts showed potent and a very broad anti-cancer activity without causing any damage to the normal cells. They have a desired pH range and have good efficacy even when exposed to the acidic environment of the gastrointestinal tract.

SUITE 200, EAST PALO ALTO, CA, 94303, US
NUMBER OF CLAIMS: 17
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Page(s)
LINE COUNT: 783
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions of purified and biologically active ellagitannins are provided by separation from pomegranate husk using a method of extraction and purification using a solid polymeric adsorbent and the uses of the said compounds

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 2 OF 15 USPATFULL on STN
ACCESSION NUMBER: 2006:73816 USPATFULL
TITLE: Composition and method to optimize and customize nutritional supplement formulations by measuring genetic and metabolomic contributing factors to disease diagnosis, stratification, prognosis, metabolism, and therapeutic outcomes
INVENTOR(S): Blum, Kenneth, San Antonio, TX, UNITED STATES
Meshkin, Brian, Temecula, CA, UNITED STATES
Downs, Bernard William, Lederach, PA, UNITED STATES

| | NUMBER | KIND | DATE | |
|---|---|---|---|---|
| PATENT INFORMATION: | US 2006062859 | A1 | 20060323 | |
| APPLICATION INFO.: | US 2005-197980 | A1 | 20050805 | (11) |

| | NUMBER | DATE |
|---|---|---|
| PRIORITY INFORMATION: | US 2004-599829P | 20040805 (60) |

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Brian Mashkin, Salugen, Inc., Suite 500, 4460 Le Jolla Village Drive, San Diego, CA, 92122, US
NUMBER OF CLAIMS: 86
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 6 Drawing Page(s)
LINE COUNT: 6858
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to a composition and custom business model and methods to measure genetic and metabolomic contributing factors affecting disease diagnosis, stratification, and prognosis, as well as the metabolism, efficacy and/or toxicity associated with specific vitamins, minerals, herbal supplements, homeopathic ingredients, and other ingredients for the purposes of customizing a subject's nutritional supplements with custom formulations to optimize health outcomes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2004:797490 CAPLUS
TITLE: Methods for treating cancer using perna canaliculus component(s) and extracts of perna canaliculus
INVENTOR(S): Kendall, Roger V.; Lawson, John
PATENT ASSIGNEE(S): Foodscience Corporation, USA
SOURCE: PCT Int. Appl.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2004082614 | A2 | 20040930 | WO 2004-US7795 | 20040315 |
| WO 2004082614 | A3 | 20050609 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| AU 2004222337 | A1 | 20040930 | AU 2004-222337 | 20040315 |
| CA 2519109 | A1 | 20040930 | CA 2004-2519109 | 20040315 |
| US 2004228926 | A1 | 20041118 | US 2004-800016 | 20040315 |
| EP 1603405 | A2 | 20051214 | EP 2004-720785 | 20040315 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK | | | | |
| JP 2006520389 | T | 20060907 | JP 2006-507178 | 20040315 |
| PRIORITY APPLN. INFO.: | | | US 2003-454340P P | 20030314 |
| | | | WO 2004-US7795 W | 20040315 |

AB Described are methods for administering at least one component derived from Perna canaliculus or Mytilus edulis, particularly as an extract, to treat cancer and cancerous tumors in man or animals. Also described are novel compositions of extracts from Perna canaliculus or Mytilus edulis, methods of making these novel compositions, and the use of these compositions in the described methods.

L2 ANSWER 4 OF 15 IFIPAT COPYRIGHT 2007 IFI on STN DUPLICATE 2

| | |
|---|---|
| AN | 10721676 IFIPAT;IFIUDB;IFICDB |
| TITLE: | METHODS FOR TREATING CANCER USING PERNA CANALICULUS COMPONENT(S) AND EXTRACTS OF PERNA CANALICULUS; ADMINISTERING PERNA CANALICULUS AND/OR MYTILUS EDULIS MUSSEL COMPONENT WHICH EXHIBITS CYTOTOXICITY TO MALIGNANT TUMOR CELLS |
| INVENTOR(S): | Kendall; Roger V., Westford, VT, US<br>Lawson; John, Clemson, SC, US |
| PATENT ASSIGNEE(S): | Unassigned |
| PATENT ASSIGNEE PROBABLE: | Food Science Corp (Probable) |
| AGENT: | MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON BLVD., SUITE 1400, ARLINGTON, VA, 22201, US |

| | NUMBER | PK | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 2004228926 | A1 | 20041118 |
| APPLICATION INFORMATION: | US 2004-800016 | | 20040315 |

| | NUMBER | DATE |
|---|---|---|
| PRIORITY APPLN. INFO.: | US 2003-454340P | 20030314 (Provisional) |
| FAMILY INFORMATION: | US 2004228926 | 20041118 |

| | |
|---|---|
| DOCUMENT TYPE: | Utility<br>Patent Application - First Publication |
| FILE SEGMENT: | CHEMICAL<br>APPLICATION |

PARENT CASE DATA:

This application claims the benefit of the filing date of U.S. Provisional Application Serial No. 60/454,340 filed Mar. 14, 2003. The invention includes the use of at least one component derived from Perna ***canaliculus*** to treat cancer and/or cancerous tumors in man or animals. The invention also includes novel compositions of extracts from ***Perna*** canaliculus, methods of making these novel compositions, and the use of these compositions in the described ***methods.*** Components and extracts of Blue mussels, i.e., Mytilus edulis, can analogously be provided and used according to the invention and all references made herein to Perna canaliculus or PCE should be understood to include Mytilus edulis and components or extracts thereof.

NUMBER OF CLAIMS: 26 15 Figure(s).

DESCRIPTION OF FIGURES:

FIG. 1. 50% inhibition of Cox-1 is seen between the 1:200 and 1:400 dilutions of the Tween extract and between the 1:10 and 1:100 dilutions of the Glycogen extract.

FIG. 2. 50% inhibition of Cox-2 is seen between the 1:200 and 1:400 dilutions of the Tween extract and between the 1:10 and 1:100 dilutions of the Glycogen extract.

FIG. 3. Significant inhibition of tumors is seen at the 1:10 and 1:00 dilutions of Tween extract.

FIG. 4. Significant inhibition of potato tumors is seen with the 1:10 concentration of the Glycogen extract.

FIG. 5. The fraction of Tween extract retained by the 100K filter shows significant inhibition of potato tumors at both the 1:10 and 1:100 concentrations.

FIG. 6. The pH of the Tween extract is altered using 10N NaOH and 10N HCl. Significant inhibition of potato tumors occurs at both the 1:10 and 1:100 concentrations of the pH 2>100 K sample, at the 1:10 concentration of the pH 2 100K-10K sample, at the 1:10 and 1:100 concentrations of the pH 2<10K sample, and at the 1:10 and 1:100 concentrations of the pH 9>100 K sample.

FIG. 7. The pH of the Tween extract is altered using 1 N NaOH before filtering. These extracts are tested at a concentration of 1:10. Significant inhibition of potato tumors is seen at the pH 9>100 K sample, the pH 8>100 K sample, and the pH 7>100K sample.

FIG. 8. The Tween extract is treated with Pronase and Proteinase K independently and incubated at 37 degrees C for time periods ranging from 0-48 hours. The enzyme activity is halted by incubating tubes at 80 degrees C for 15 minutes. Tx is untreated full strength Tween extract that is incubated along with the other samples for 48 hours. Samples are tested at a concentration of 1:10. No significant change in activity is seen in any sample upon treatment with either proteolytic enzyme.

FIG. 9. Significant inhibition of tumors is seen with the >300K and 300K-100K fractions of the Tween extract. Significant inhibition of tumors is seen with the >300K fraction of the Glycogen extract. Campto is 0.1 ppm Camptothecin.

FIG. 10. The fraction of glycogen extract retained by the 100K filter shows significant inhibition of potato tumors at both the 1:10 and 1:100 concentrations. The fraction of glycogen extract that passed through the 100K filter but was retained by the 30K filter shows slightly significant inhibition of potato tumors at both the 1:10 and 1:100 concentrations.

FIG. 11. The pH of the glycogen extract is altered using 10 N NaOH and 10 N HCl before filtering. Significant inhibition of potato tumors is seen at the 1:10 and 1:100 concentrations of the pH 2>100 K sample, at the 1:10 and 1:100 concentrations of the pH 9>100 K sample, and at the 1:10 concentration of the pH 9<10K sample

FIG. 12. The pH of the glycogen extract is altered using 1 N NaOH before filtering. These extracts are tested at a concentration of 1:10. Significant inhibition of potato tumors is seen at the pH 9>100 K sample, the pH 9 100K-10K sample, the pH 8>100 K sample, the pH 7>100K sample, and the pH 7 100K-10K sample.

FIG. 13. The glycogen extract is treated with Pronase and Proteinase K independently and incubated at 37 degrees C for time periods ranging from 0-48

hours. The enzyme activity is halted by incubating tubes at 80 degrees C for 15 minutes. Gx is untreated full strength glycogen extract that was incubated along with the other samples for 48 hours. Samples were tested at a concentration of 1:10. No significant change in activity is seen in any sample upon treatment with either proteolytic enzyme.
FIG. 14. Pena extracts at the indicated % concentrations are shown to inhibit cervical carcinoma (SiHa) cells.
FIG. 15. Perna extracts at the indicated % concentrations are shown to inhibit osteocarcinoma cells (MG-63).

AB Described are methods for administering at least one component derived from Perna canaliculus or Mytilus edulis, particularly as an extract, to treat cancer and cancerous tumors in man or animals. Also described are novel compositions of extracts from Perna canaliculus or Mytilus edulis, methods of making these novel compositions, and the use of these compositions in the described methods.

CLMN 26 15 Figure(s).

FIG. 1. 50% inhibition of Cox-1 is seen between the 1:200 and 1:400 dilutions of the Tween extract and between the 1:10 and 1:100 dilutions of the Glycogen extract.
FIG. 2. 50% inhibition of Cox-2 is seen between the 1:200 and 1:400 dilutions of the Tween extract and between the 1:10 and 1:100 dilutions of the Glycogen extract.
FIG. 3. Significant inhibition of tumors is seen at the 1:10 and 1:00 dilutions of Tween extract.
FIG. 4. Significant inhibition of potato tumors is seen with the 1:10 concentration of the Glycogen extract.
FIG. 5. The fraction of Tween extract retained by the 100K filter shows significant inhibition of potato tumors at both the 1:10 and 1:100 concentrations.
FIG. 6. The pH of the Tween extract is altered using 10N NaOH and 10N HCl. Significant inhibition of potato tumors occurs at both the 1:10 and 1:100 concentrations of the pH 2>100 K sample, at the 1:10 concentration of the pH 2 100K-10K sample, at the 1:10 and 1:100 concentrations of the pH 2<10K sample, and at the 1:10 and 1:100 concentrations of the pH 9>100 K sample.
FIG. 7. The pH of the Tween extract is altered using 1 N NaOH before filtering. These extracts are tested at a concentration of 1:10. Significant inhibition of potato tumors is seen at the pH 9>100 K sample, the pH 8>100 K sample, and the pH 7>100K sample.
FIG. 8. The Tween extract is treated with Pronase and Proteinase K independently and incubated at 37 degrees C for time periods ranging from 0-48 hours. The enzyme activity is halted by incubating tubes at 80 degrees C for 15 minutes. Tx is untreated full strength Tween extract that is incubated along with the other samples for 48 hours. Samples are tested at a concentration of 1:10. No significant change in activity is seen in any sample upon treatment with either proteolytic enzyme.
FIG. 9. Significant inhibition of tumors is seen with the >300K and 300K-100K fractions of the Tween extract. Significant inhibition of tumors is seen with the >300K fraction of the Glycogen extract. Campto is 0.1 ppm Camptothecin.
FIG. 10. The fraction of glycogen extract retained by the 100K filter shows significant inhibition of potato tumors at both the 1:10 and 1:100 concentrations. The fraction of glycogen extract that passed through the 100K filter but was retained by the 30K filter shows slightly significant inhibition of potato tumors at both the 1:10 and 1:100 concentrations.
FIG. 11. The pH of the glycogen extract is altered using 10 N NaOH and 10 N HCl before filtering. Significant inhibition of potato tumors is seen at the 1:10 and 1:100 concentrations of the pH 2>100 K sample, at the 1:10 and 1:100 concentrations of the pH 9>100 K sample, and at the 1:10 concentration of the pH 9<10K sample
FIG. 12. The pH of the glycogen extract is altered using 1 N NaOH before filtering. These extracts are tested at a concentration of 1:10. Significant inhibition of potato tumors is seen at the pH 9>100 K sample,

the pH 9 100K-10K sample, the pH 8>100 K sample, the pH 7>100K sample, and the pH 7 100K-10K sample.

FIG. 13. The glycogen extract is treated with Pronase and Proteinase K independently and incubated at 37 degrees C for time periods ranging from 0-48 hours. The enzyme activity is halted by incubating tubes at 80 degrees C for 15 minutes. Gx is untreated full strength glycogen extract that was incubated along with the other samples for 48 hours. Samples were tested at a concentration of 1:10. No significant change in activity is seen in any sample upon treatment with either proteolytic enzyme.

FIG. 14. Pena extracts at the indicated % concentrations are shown to inhibit cervical carcinoma (SiHa) cells.

FIG. 15. Perna extracts at the indicated % concentrations are shown to inhibit osteocarcinoma cells (MG-63).

L2 ANSWER 5 OF 15 USPATFULL on STN

| | | | | |
|---|---|---|---|---|
| ACCESSION NUMBER: | 2004:306579 USPATFULL | | | |
| TITLE: | Lipidated glycosaminoglycan particles and their use in drug and gene delivery for diagnosis and therapy | | | |
| INVENTOR(S): | Margalit, Rimona, Givatayim, ISRAEL<br>Peer, Dan, Qiryat Ono, ISRAEL | | | |
| | NUMBER | KIND | DATE | |
| PATENT INFORMATION: | US 2004241248 | A1 | 20041202 | |
| APPLICATION INFO.: | US 2004-487022 | A1 | 20040719 | (10) |
| | WO 2002-US25178 | | 20020809 | |
| | NUMBER | | DATE | |
| PRIORITY INFORMATION: | US 2001-311849P | | 20010814 | (60) |
| | US 2002-379741P | | 20020514 | (60) |
| DOCUMENT TYPE: | Utility | | | |
| FILE SEGMENT: | APPLICATION | | | |
| LEGAL REPRESENTATIVE: | BROWDY AND NEIMARK, P.L.L.C., 624 NINTH STREET, NW, SUITE 300, WASHINGTON, DC, 20001-5303 | | | |
| NUMBER OF CLAIMS: | 72 | | | |
| EXEMPLARY CLAIM: | 1 | | | |
| NUMBER OF DRAWINGS: | 21 Drawing Page(s) | | | |
| LINE COUNT: | 1790 | | | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Lipidated glycosaminoglycan particles are prepared by reacting a glycosaminoglycan with at least one lipid to cross-link the carboxylic acid groups in the glycosaiminoglycan with a primary amine in the lipid. These particles can be used to encapsulate active ingredients, such as drugs for use in the treatment of pathological conditions in an animal.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 6 OF 15 USPATFULL on STN DUPLICATE 3

| | | | |
|---|---|---|---|
| ACCESSION NUMBER: | 2003:293967 USPATFULL | | |
| TITLE: | Extracts of celery seed for the prevention and treatment of pain, inflammation and gastrointestinal irritation | | |
| INVENTOR(S): | Butters, Desley Ethel, Stones Corner, AUSTRALIA<br>Davis, Craig Kendall Charles, Chapel Hill, AUSTRALIA<br>McGeary, Ross Peter, St Lucia, AUSTRALIA<br>Powanda, Michael Christopher, Mill Valley, CA, UNITED STATES<br>Rainsford, Kim Drummond, Baslo, UNITED KINGDOM<br>Whitehouse, Michael Wellesley, Stones Corner, AUSTRALIA | | |
| | NUMBER | KIND | DATE |
| PATENT INFORMATION: | US 2003206980 | A1 | 20031106 |

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FILE 'USPAT2' ENTERED AT 09:21:15 ON 20 FEB 2007
CA INDEXING COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

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FILE 'WPIFV' ENTERED AT 09:21:15 ON 20 FEB 2007
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FILE 'WPINDEX' ACCESS NOT AUTHORIZED

=> s canaliculus and mussel
  20 FILES SEARCHED...
  44 FILES SEARCHED...
L1        1256 CANALICULUS AND MUSSEL

=> s L1 and extract
  28 FILES SEARCHED...
  64 FILES SEARCHED...
L2         263 L1 AND EXTRACT

=> s L2 and sorbitan
  44 FILES SEARCHED...
L3           3 L2 AND SORBITAN

=> s L3 and polyoxyethylene
  30 FILES SEARCHED...
L4           3 L3 AND POLYOXYETHYLENE

=> dup rem
ENTER L# LIST OR (END):L4
DUPLICATE IS NOT AVAILABLE IN 'ADISINSIGHT, ADISNEWS, DGENE, DRUGMONOG2,
FOREGE, GENBANK, IMSPRODUCT, IMSRESEARCH, KOSMET, NUTRACEUT, PCTGEN, PHAR,
PHARMAML, PROUSDDR, PS, RDISCLOSURE, SYNTHLINE'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING COMPLETED FOR L4
L5            2 DUP REM L4 (1 DUPLICATE REMOVED)

=> d L5 1-2 ibib abs

L5   ANSWER 1 OF 2  IFIPAT  COPYRIGHT 2007 IFI on STN  DUPLICATE 1
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| | | | |
|---|---|---|---|
| | US 6761913 | B2 | 20040713 |
| APPLICATION INFO.: | US 2003-421202 | A1 | 20030422 (10) |

RELATED APPLN. INFO.: Division of Ser. No. US 2001-32956, filed on 26 Oct 2001, GRANTED, Pat. No. US 6576274 Continuation of Ser. No. US 1999-432140, filed on 2 Nov 1999, GRANTED, Pat. No. US 6352728

| | NUMBER | DATE |
|---|---|---|
| PRIORITY INFORMATION: | AU 1998-7975 | 19981230 |
| | AU 1998-6891 | 19981104 |

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: BOZICEVIC, FIELD & FRANCIS LLP, 200 MIDDLEFIELD RD, SUITE 200, MENLO PARK, CA, 94025
NUMBER OF CLAIMS: 40
EXEMPLARY CLAIM: 1
LINE COUNT: 1339

AB Biologically active extracts of celery seed are produced by controlled ethanolic extraction, distillation and drying, and further processing by supercritical fluid extractions (SFE), and may be further fractionated by column fractionation, distillation, LiAlH reduction and the like. These extracts possess activity for the treatment and prevention of acute and chronic pain, inflammation and gastrointestinal irritation.

L2 ANSWER 7 OF 15 USPATFULL on STN DUPLICATE 4
ACCESSION NUMBER: 2003:64350 USPATFULL
TITLE: Pharmaceutical composition useful for inhibition of osteoclast formation and a process for the extraction of mussel hudrolysate from indian green mussel
INVENTOR(S): Wani, Mohan Ramachandra, Pune, INDIA
Parab, Pradeep Bhaskar, Pune, INDIA
Chatterji, Anil, Pune, INDIA

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 2003044470 | A1 | 20030306 |
| | US 6905710 | B2 | 20050614 |
| APPLICATION INFO.: | US 2001-944497 | A1 | 20010831 (9) |

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: BAKER & BOTTS, 30 ROCKEFELLER PLAZA, NEW YORK, NY, 10112
NUMBER OF CLAIMS: 35
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 5 Drawing Page(s)
LINE COUNT: 550
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides a compositions comprising mussel hydrolysate from Indian green mussel, e.g., Perna viridis. The invention further provides methods of inhibiting or preventing osteoclast formation and/or bone resorption comprising administration of mussel hydrolysate from Indian Green to an animal or human. The compositions of the invention are non-toxic to other cells. Additionally, the invention provides processes for extracting mussel hydrolysate from Indian green mussel, e.g., Perna viridis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 8 OF 15 USPATFULL on STN DUPLICATE 5
ACCESSION NUMBER: 2002:156746 USPATFULL
TITLE: Extracts of celery seed for the prevention and treatment of pain, inflammation and gastrointestinal

irritation

INVENTOR(S): Butters, Desley Ethel, Stones Corner, AUSTRALIA
Davis, Craig Kendall Charles, Chapel Hill, AUSTRALIA
McGeary, Ross Peter, St. Lucia, AUSTRALIA
Powanda, Michael Christopher, Mill Valley, CA, UNITED STATES
Rainsford, Kim Drummond, Baslow, UNITED KINGDOM
Whitehouse, Michael Wellesley, Stones Corner, AUSTRALIA

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 2002081343 | A1 | 20020627 |
| | US 6576274 | B2 | 20030610 |
| APPLICATION INFO.: | US 2001-32956 | A1 | 20011026 (10) |

RELATED APPLN. INFO.: Continuation of Ser. No. US 1999-432140, filed on 2 Nov 1999, PATENTED

| | NUMBER | DATE |
|---|---|---|
| PRIORITY INFORMATION: | AU 1998-7975 | 19981230 |
| | AU 1998-6891 | 19981104 |

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: PAMELA J. SHERWOOD, Bozicevic, Field and Francis LLP, Suite 200, 200 Middlefield Road, Menlo Park, CA, 94025
NUMBER OF CLAIMS: 40
EXEMPLARY CLAIM: 1
LINE COUNT: 1339

AB Biologically active extracts of celery seed are produced by controlled ethanolic extraction, distillation and drying, and further processing by supercritical fluid extractions (SFE), and may be further fractionated by column fractionation, distillation, LiAlH reduction and the like. These extracts possess activity for the treatment and prevention of acute and chronic pain, inflammation and gastrointestinal irritation.

L2 ANSWER 9 OF 15 USPATFULL on STN
ACCESSION NUMBER: 2001:102805 USPATFULL
TITLE: Aminosugar, glycosaminoglycan or glycosaminoglycan-like compounds, and s-adenosylmethionine composition for the protection, treatment, repair, and reduction of inflammation of connective tissue

INVENTOR(S): Henderson, Robert W., Baldwin, MD, United States
Henderson, Todd, Bel Air, MD, United States
Hammad, Tarek, Baltimore, MD, United States

PATENT ASSIGNEE(S): Nutramax Laboratories, Inc., Baltimore, MD, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 6255295 | B1 | 20010703 |
| APPLICATION INFO.: | US 1997-845852 | | 19970428 (8) |

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1997-797294, filed on 7 Feb 1997 Continuation-in-part of Ser. No. US 1996-779996, filed on 23 Dec 1996
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Geist, Gary
ASSISTANT EXAMINER: White, Everett
LEGAL REPRESENTATIVE: Covington & Burling
NUMBER OF CLAIMS: 10
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Figure(s); 3 Drawing Page(s)
LINE COUNT: 1593

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A composition for the protection, treatment and repair and for reducing the inflammation of connective tissue in mammals and a method for the protection, treatment of connective tissue in mammals by the administration of the composition. The composition includes at least two compounds selected from S-Adenosylmethionine (SAM), an aminosugar selected from the group consisting of glucosamine, glucosamine salts, glucosamine hydrochloride, galactosamine, N-acetylglucosamine, and fragments, mixtures or salts thereof, and a glycosaminoglycan or glycosaminoglycan-like compound selected from the group consisting of chondroitin, chondroitin salts, hyaluronic acid, glucuronic acid, iduronic acid, keratan sulfate, keratin sulfate, heparan sulfate, dermatin sulfate, PPS, sodium PPS, calcium PPS, oversulfated GAGs, and fragments, salts, and mixtures thereof. The composition optionally includes manganese which promotes the production of connective tissue matrix. The composition also optionally includes methyl donors or methyl donor cofactors, such as vitamin B.sub.12, vitamin B.sub.6, folic acid, dimethylglycine or trimethylglycine, and betaine.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 10 OF 15 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 2000-579334 [54] WPIDS
DOC. NO. CPI: C2000-172488 [54]
TITLE: Inhibition of synthesis of 5-hydroxyeicosatetraenoic acid (5-HETE) and/or 12-HETE, for the treatment of cancer, comprises administration of a lipid extract of Perna canaliculus or Mytulis edulis
DERWENT CLASS: B04
INVENTOR: BETTS H W; KALAFATIS N; MACRIDES T
PATENT ASSIGNEE: (PHAR-N) PHARMALINK INT LTD
COUNTRY COUNT: 89

PATENT INFO ABBR.:

| PATENT NO | KIND | DATE | WEEK | LA | PG | MAIN IPC |
|---|---|---|---|---|---|---|
| WO 2000053198 | A1 | 20000914 | (200054)* | EN | 32[2] | |
| AU 2000031343 | A | 20000928 | (200067) | EN | | |

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION | DATE |
|---|---|---|---|
| WO 2000053198 | A1 | WO 2000-AU179 | 20000310 |
| AU 2000031343 | A | AU 2000-31343 | 20000310 |

FILING DETAILS:

| PATENT NO | KIND | | PATENT NO |
|---|---|---|---|
| AU 2000031343 | A | Based on | WO 2000053198 A |

PRIORITY APPLN. INFO: AU 1999-9106 19990310
AN 2000-579334 [54] WPIDS
AB WO 2000053198 A1 UPAB: 20060117
NOVELTY - Inhibition of synthesis of 5-hydroxyeicosatetraenoic acid (5-HETE) and/or 12-HETE comprising administering a lipid extract of Perna canaliculus or Mytulis edulis, is new.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a composition for the treatment of cancer comprising a lipid extract of Perna canaliculus or Mytulis edulis.
ACTIVITY - Cytostatic; antiasthmatic; bronchodilator;

antiarteriosclerotic; vasodilator; hypotensive; dermatological; antipsoriatic; gastrointestinal general; antiinflammatory; antiulcer; antibacterial; immunosuppressive; antiarthritic; antirheumatic; antiallergic; ophthalmological; gynecological; nephrotropic; antidiabetic.

Forty patients aged 18-62 years, with atopic steroid-naive asthma were used in a double-blind randomized placebo study. Thirty patients were treated with the lipid extract for 10 weeks and 10 were treated with a placebo. Inhalations of beta2-antagonists were used by each group on demand. Results after 8 weeks showed that in the test group chest tightness, night awakening, and usage of beta2-antagonists (puffs/day) had decreased by 40, 70, and 50 % respectively and peak expiration flow had increased by 15 %. In the placebo group chest tightness had decreased by 13 %, and night awakening, and usage of beta2-antagonists (puffs/day) had increased by 80, and 300 % respectively, with no change in peak flow.

MECHANISM OF ACTION - Antimetastatic; lipoxygenase inhibitor.

USE - The method is used in the treatment of cancer, especially in the inhibition of tumor cell proliferation or tumor metastasis (claimed). The method can also be used in the treatment of any disease associated with a lipoxygenase pathway, e.g. respiratory diseases (such as asthma, bronchial diseases and chronic obstructive pulmonary disease), vascular diseases (such as atherosclerosis, coronary artery diseases, hypertension and sickle cell disease-associated vaso-occlusion), skin diseases (such as dermatitis, psoriasis and atopic eczema), gastrointestinal diseases (such as inflammatory bowel disease, ulcerative colitis, Crohn's disease, pancreatitis, and periodontal disease), sarcoidosis, septic shock, musculo-skeletal diseases (such as arthritis), leukemia, diabetes, allergy (such as otitis media and ocular allergy), uveitis, kidney diseases (such as glomerulonephritis and nephrotic syndrome), and prostate diseases (such as benign prostate hyperplasia).

L2 ANSWER 11 OF 15 SCISEARCH COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 1997:73469 SCISEARCH
THE GENUINE ARTICLE: WC951
TITLE: Mutagenicity tests as a monitoring tool for potential mutagens and carcinogens in shellfish gathering areas of New Zealand
AUTHOR: Ferguson L R (Reprint); Gregory T J; Pearson A E; Hay J E; Lewis G D
CORPORATE SOURCE: UNIV AUCKLAND, SCH MED, CANC RES LAB, PRIVATE BAG 92019, AUCKLAND, NEW ZEALAND (Reprint)
COUNTRY OF AUTHOR: NEW ZEALAND
SOURCE: NEW ZEALAND JOURNAL OF MARINE AND FRESHWATER RESEARCH, (DEC 1996) Vol. 30, No. 4, pp. 413-421. ISSN: 0028-8330.
PUBLISHER: SIR PUBLISHING, PO BOX 399, WELLINGTON, NEW ZEALAND.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: AGRI
LANGUAGE: English
REFERENCE COUNT: 28
ENTRY DATE: Entered STN: 1997
Last Updated on STN: 1997

*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*

AB Shellfish may bioaccumulate a variety of chemicals, some of which are mutagenic or carcinogenic to humans. Mutagenicity tests provide an integrated way of detecting these chemicals. This paper describes the application of two such tests to New Zealand shellfish in laboratory and field situations. The bacterial mutagenicity test gave positive results on a nitric acid extract of green-lipped mussels (Perna canaliculus) that had been exposed to model carcinogens under laboratory conditions. When applied to Pacific oysters (Crassostrea gigas) that had been sampled from four different sites in the Manukau Harbour, the same methods detected mutagenic activity which

varied both by date and area sampled. The micronucleus assay gave a readily scored measure of chromosome damage in gill tissues in both mussels and oysters, but presented some practical problems in field studies. Our studies emphasise the need to sample within a short time interval, and the advantage of using a complementary package of bacterial mutagenicity and gill micronucleus assays.

L2 ANSWER 12 OF 15 FROSTI COPYRIGHT 2007 LFRA on STN
ACCESSION NUMBER: 685853 FROSTI
TITLE: Methods for treating cancer using Perna canaliculus component(s) and extracts of Perna canaliculus.
INVENTOR: Kendall R.V.; Lawson J.
PATENT ASSIGNEE: Foodscience Corp.
SOURCE: European Patent Application
PATENT INFORMATION: EP 1603405 A2
WO 2004082614 20040930
APPLICATION INFORMATION: 20040315
PRIORITY INFORMATION: United States 20030314
DOCUMENT TYPE: Patent
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Compositions containing novel mussel extracts are described for use in treating cancer and cancerous tumours. The invention uses therapeutically active extracts from mussels belonging to Perna canaliculus or Mytilus edulis. The novel extracts are claimed to exhibit cytotoxic activity against a wide range of cancer cells, particularly malignant tumour cells. The extracts are believed to inhibit the cancer cells only in the growth phase of the cell cycle, and do not damage normal cells, which are mostly in the resting phase. Compositions containing Perna canaliculus extracts are claimed to exhibit therapeutic effects against a wider range of cancer cells, and can be used to treat leukaemia, osteosarcoma, cervical cancer, kidney tumours, prostate cancer, breast cancers, melanoma, and bladder cancer.

L2 ANSWER 13 OF 15 FROSTI COPYRIGHT 2007 LFRA on STN
ACCESSION NUMBER: 688744 FROSTI
TITLE: Anti-angiogenic compositions containing beeswax.
INVENTOR: Davis P.F.
PATENT ASSIGNEE: University of Otago (Dunedin; New Zealand); Immuno Research Ltd
SOURCE: PCT Patent Application
PATENT INFORMATION: WO 2006009477 A1
APPLICATION INFORMATION: 20050721
PRIORITY INFORMATION: New Zealand 20040722
DOCUMENT TYPE: Patent
LANGUAGE: English
SUMMARY LANGUAGE: English
AB A composition with improved anti-angiogenic activity consists of shark meat and mussel extracts and beeswax. The invention is claimed to be useful in preventing or treating arthritis, macular degeneration, retinopathy, cancer and other diseases associated with angiogenesis. The mussel extract is preferably obtained from the New Zealand green-lipped mussel (Perna canaliculus), the Korean mushroom (Phellinus linteus) or the Maitake mushroom (Grifola frondosa). The meat extract may be obtained from dogfish, rig (lemonfish), ghost shark, school shark, blue shark, mako, blacktip reef shark, salmon shark or elephant fish. The composition preferably includes olive oil and vitamin E. A method of using the composition is also disclosed.

L2 ANSWER 14 OF 15 FROSTI COPYRIGHT 2007 LFRA on STN

ACCESSION NUMBER: 651114 FROSTI
TITLE: Methods for treating cancer using Perna canaliculus component(s) and extracts of Perna canaliculus.
INVENTOR: Kendall R.V.; Lawson J.
PATENT ASSIGNEE: Foodscience Corp.
SOURCE: PCT Patent Application
PATENT INFORMATION: WO 2004082614 A2
APPLICATION INFORMATION: 20040315
PRIORITY INFORMATION: United States 20030314
DOCUMENT TYPE: Patent
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Compositions containing novel mussel extracts are described for use in treating cancer and cancerous tumours. The invention uses therapeutically active extracts from mussels belonging to Perna canaliculus or Mytilus edulis. The novel extracts are claimed to exhibit cytotoxic activity against a wide range of cancer cells, particularly malignant tumour cells. The extracts are believed to inhibit the cancer cells only in the growth phase of the cell cycle, and do not damage normal cells, which are mostly in the resting phase. Compositions containing Perna canaliculus extracts are claimed to exhibit therapeutic effects against a wider range of cancer cells, and can be used to treat leukaemia, osteosarcoma, cervical cancer, kidney tumours, prostate cancer, breast cancers, melanoma, and bladder cancer.

L2 ANSWER 15 OF 15 FROSTI COPYRIGHT 2007 LFRA on STN
ACCESSION NUMBER: 537958 FROSTI
TITLE: Inhibitor of lipoxygenase pathways.
INVENTOR: Macrides T.; Kalafatis N.; Betts H.W.
PATENT ASSIGNEE: Pharmalink International Ltd
SOURCE: PCT Patent Application
PATENT INFORMATION: WO 2000053198 A1
APPLICATION INFORMATION: 20000310
PRIORITY INFORMATION: Australia 19990310
DOCUMENT TYPE: Patent
LANGUAGE: English
SUMMARY LANGUAGE: English
AB A method for the inhibition of lipoxygenase pathways is described. Lipid extracts of the New Zealand green-lipped mussel Perna canaliculus or the blue mussel Mytulis edulis inhibit the 5- or 12-lipoxygenase pathways, or both, and may act as a prophylactic or therapeutic agent in the treatment of cancer, asthma and atherosclerosis. The lipid extract may be obtained by supercritical fluid extraction of a crude powder, and is rich in non-polar lipids. The extracts also inhibit leukotriene synthesis.

=> d his

(FILE 'HOME' ENTERED AT 12:20:57 ON 11 JAN 2007)

FILE 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOENG, BIOSIS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DGENE, DISSABS, DRUGB, DRUGMONOG2, DRUGU, EMBAL, EMBASE, ESBIOBASE, FOMAD, ...' ENTERED AT 12:21:10 ON 11 JAN 2007
L1 20 S METHOD AND CANCER AND PERNA CANALICULUS
L2 15 DUP REM L1 (5 DUPLICATES REMOVED)

=> s method and cancer and Mytilus edulis and mussel
20 FILES SEARCHED...

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  21 FILES SEARCHED...
  44 FILES SEARCHED...
  60 FILES SEARCHED...
L3          111 METHOD AND CANCER AND MYTILUS EDULIS AND MUSSEL

=> dup rem
ENTER L# LIST OR (END):L3
DUPLICATE IS NOT AVAILABLE IN 'ADISINSIGHT, ADISNEWS, DGENE, DRUGMONOG2,
FOREGE, GENBANK, IMSPRODUCT, IMSRESEARCH, KOSMET, NUTRACEUT, PCTGEN, PHAR,
PHARMAML, PROUSDDR, PS, RDISCLOSURE, SYNTHLINE'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING COMPLETED FOR L3
L4           65 DUP REM L3 (46 DUPLICATES REMOVED)

=> d L4 1-65 ibib,abs

L4   ANSWER 1 OF 65  USPATFULL on STN                    DUPLICATE 1
ACCESSION NUMBER:        2006:30611  USPATFULL
TITLE:                   Cloning and expression of recombinant adhesive protein
                         MEFP-2 of the blue mussel, Mytilus
                         edulis
INVENTOR(S):             Silverman, Heather G., Idaho Falls, ID, UNITED STATES
                         Roberto, Francisco F., Idaho Falls, ID, UNITED STATES
PATENT ASSIGNEE(S):      Battelle Energy Alliance, LLC, Idaho Falls, ID, UNITED
                         STATES (U.S. corporation)

                              NUMBER        KIND    DATE
                         ---------------- ------ --------
PATENT INFORMATION:      US 6995012          B1   20060207
                         US 2006029996       A1   20060209
APPLICATION INFO.:       US 2004-915160           20040809  (10)
DOCUMENT TYPE:           Utility
FILE SEGMENT:            GRANTED
PRIMARY EXAMINER:        Wax, Robert A.
ASSISTANT EXAMINER:      Rooke, Agnes
LEGAL REPRESENTATIVE:    Trask Britt, P.C.
NUMBER OF CLAIMS:        24
EXEMPLARY CLAIM:         1
NUMBER OF DRAWINGS:      1 Drawing Figure(s); 1 Drawing Page(s)
LINE COUNT:              1290
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB     The present invention includes a Mytilus edulis cDNA
       having a nucleotide sequence that encodes for the Mytilus
       edulis foot protein-2 (Mefp-2), an example of a mollusk foot
       protein. Mefp-2 is an integral component of the blue mussels'
       adhesive protein complex, which allows the mussel to attach to
       objects underwater. The isolation, purification and sequencing of the
       Mefp-2 gene will allow researchers to produce Mefp-2 protein using
       genetic engineering techniques. The discovery of Mefp-2 gene sequences
       will also allow scientists to better understand how the blue
       mussel creates its waterproof adhesive protein complex.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4   ANSWER 2 OF 65  USPATFULL on STN                    DUPLICATE 2
ACCESSION NUMBER:        2006:11945  USPATFULL
TITLE:                   Cloning and expression of recombinant adhesive protein
                         Mefp-1 of the blue mussel, Mytilus
                         edulis
INVENTOR(S):             Silverman, Heather G., Idaho Falls, ID, UNITED STATES
                         Roberto, Francisco F., Idaho Falls, ID, UNITED STATES
PATENT ASSIGNEE(S):      Battelle Energy Alliance, LLC, Idaho Falls, ID, UNITED
                         STATES (U.S. corporation)
```

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 6987170 | B1 | 20060117 |
| | US 2006029997 | A1 | 20060209 |
| APPLICATION INFO.: | US 2004-915161 | | 20040809 (10) |

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Wax, Robert A.
ASSISTANT EXAMINER: Rooke, Agnes
LEGAL REPRESENTATIVE: Trask Britt P.C.
NUMBER OF CLAIMS: 14
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)
LINE COUNT: 1185
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention comprises a Mytilus edulis cDNA sequenc having a nucleotide sequence that encodes for the Mytilus edulis foot protein-1 (Mefp-1), an example of a mollusk foot protein. Mefp-1 is an integral component of the blue mussels' adhesive protein complex, which allows the mussel to attach to objects underwater. The isolation, purification and sequencing of the Mefp-1 gene will allow researchers to produce Mefp-1 protein using genetic engineering techniques. The discovery of Mefp-1 gene sequence will also allow scientists to better understand how the blue mussel creates its waterproof adhesive protein complex.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 3 OF 65 USPATFULL on STN
ACCESSION NUMBER: 2006:182979 USPATFULL
TITLE: Medical prosthetic devices and implants having improved biocompatibility
INVENTOR(S): Ellingsen, Jan Eirik, Bekkestua, NORWAY
Lyngstadaas, Staale Petter, Nesoddtangen, NORWAY

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 2006155384 | A1 | 20060713 |
| APPLICATION INFO.: | US 2006-344437 | A1 | 20060201 (11) |

RELATED APPLN. INFO.: Continuation of Ser. No. US 2001-10140, filed on 6 Dec 2001, PENDING

| | NUMBER | DATE |
|---|---|---|
| PRIORITY INFORMATION: | DK 2000-1829 | 20001206 |
| | US 2000-254987P | 20001212 (60) |

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: BIRCH STEWART KOLASCH & BIRCH, PO BOX 747, FALLS CHURCH, VA, 22040-0747, US
NUMBER OF CLAIMS: 18
EXEMPLARY CLAIM: 1
LINE COUNT: 1147
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A medical prosthetic device or medical implant containing a metal material (A) selected from the group consisting of titanium or an alloy thereof, zirconium or an alloy thereof, tantalum or an alloy thereof, hafnium or an alloy thereof, niobium or an alloy thereof and a chromium-vanadium alloy, wherein surface parts of the metal material (A) are coated with a layer of a corresponding hydride material (B) selected from titanium hydride, zirconium hydride, tantalum hydride, hafnium hydride, niobium hydride and chromium and/or vanadium hydride, respectively, said device or implant being characterised in that the

layer of hydride material (B) comprises one or more biomolecule substances (C) associated therewith. The device or implant exhibits improved biocompatibility. The metal material (A) is preferably titanium. The biomolecule substance (C) may be selected from the following types of substances: Natural or recombinant bio-adhesives; natural or recombinant cell attachment factors; natural, recombinant or synthetic biopolymers; natural or recombinant blood proteins; natural or recombinant enzymes; natural or recombinant extracellular matrix proteins; natural or synthetic extracellular matrix biomolecules; natural or recombinant growth factors and hormones; natural, recombinant or synthetic peptide hormones; natural, recombinant or synthetic deoxyribonucleic acids; natural, recombinant or synthetic ribonucleic acids; natural or recombinant receptors; enzyme inhibitors; drugs; biologically active anions and cations; vitamins; adenosine monophosphate (AMP), adenosine diphosphate (ADP) or adenosine triphosphate (A TP); marker biomolecules; amino acids; fatty acids; nucleotides (RNA and DNA bases); and sugars.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 4 OF 65 USPATFULL on STN
ACCESSION NUMBER: 2006:10696 USPATFULL
TITLE: Polymeric compositions and related methods of use
INVENTOR(S): Messersmith, Phillip B., Clarendon Hills, IL, UNITED STATES
Fan, Xiaowu, Evanston, IL, UNITED STATES
Lin, Lijun, Stafford, TX, UNITED STATES

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 2006009550 | A1 | 20060112 |
| APPLICATION INFO.: | US 2005-179218 | A1 | 20050711 (11) |

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2005-68298, filed on 28 Feb 2005, PENDING Continuation-in-part of Ser. No. US 2002-199960, filed on 19 Jul 2002, ABANDONED

| | NUMBER | DATE |
|---|---|---|
| PRIORITY INFORMATION: | US 2004-586742P | 20040709 (60) |
| | US 2001-306750P | 20010720 (60) |
| | US 2002-373919P | 20020419 (60) |
| | US 2004-548314P | 20040227 (60) |
| | US 2004-549259P | 20040302 (60) |

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: REINHART BOERNER VAN DEUREN S.C., ATTN: LINDA KASULKE, DOCKET COORDINATOR, 1000 NORTH WATER STREET, SUITE 2100, MILWAUKEE, WI, 53202, US
NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 35 Drawing Page(s)
LINE COUNT: 3217
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Methods for surface-initiated atom transfer radical polymerization, which can utilize a catecholic alkyl halide initiator.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 5 OF 65 USPATFULL on STN
ACCESSION NUMBER: 2006:23891 USPATFULL
TITLE: Product from starfish
INVENTOR(S): Grundy, Michelle Marguerite, Colebrook, UNITED KINGDOM
McKenzie, John Douglas, Scotland, UNITED KINGDOM

Richardson, Neville Vincent, Fife, UNITED KINGDOM
Bavington, Charles Daniel, Oban, UNITED KINGDOM
Mulloy, Barbara, London, UNITED KINGDOM
Lever, Rebecca, London, UNITED KINGDOM
Page, Clive Pete, London, UNITED KINGDOM

PATENT ASSIGNEE(S): King's College London, London, UNITED KINGDOM (non-U.S. corporation)

| | NUMBER | KIND | DATE | |
|---|---|---|---|---|
| PATENT INFORMATION: | US 6991810 | B1 | 20060131 | |
| | WO 2000075183 | | 20001214 | |
| APPLICATION INFO.: | US 2001-18240 | | 20000608 | (10) |
| | WO 2000-GB2233 | | 20000608 | |
| | | | 20020408 | PCT 371 date |

| | NUMBER | DATE |
|---|---|---|
| PRIORITY INFORMATION: | GB 1999-13237 | 19990608 |

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Lilling, Herbert J.
LEGAL REPRESENTATIVE: St. Onge Steward Johnston & Reens LLC
NUMBER OF CLAIMS: 7
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 5 Drawing Figure(s); 6 Drawing Page(s)
LINE COUNT: 1759
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to a product capable of having one or more properties sected from: anti-fouling properties, anti-adhesive properties, anti-inflammatory properties, and wherein said product is obtainable from starfish.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 6 OF 65 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 2006:325315 BIOSIS
DOCUMENT NUMBER: PREV200600317860
TITLE: Local extinction of a foundation species in a hypoxic estuary: Integrating individuals to ecosystem.
AUTHOR(S): Altieri, Andrew H. [Reprint Author]; Witman, Jon D.
CORPORATE SOURCE: Brown Univ, Dept Ecol and Evolutionary Biol, Box G-W, Providence, RI 02912 USA
Andrew_Altieri@Brown.edu
SOURCE: Ecology (Washington D C), (MAR 2006) Vol. 87, No. 3, pp. 717-730.
CODEN: ECOLAR. ISSN: 0012-9658.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 21 Jun 2006
Last Updated on STN: 21 Jun 2006

AB We integrated across individual, Population, Community, and ecosystem levels to understand the impact of environmental stress by tracking the foundation species Mytilus edulis in the hypoxic estuary Narragansett Bay, Rhode Island, USA. Our initial Surveys revealed that the Mussels occurred in nine extensive (2-28 ha) dense (814-9943 individuals/m(2)) subtidal reefs; that attracted a diverse suite of predators (sea stars, crabs, gastropods). Hypoxia occurred in the summer of 2001, and a Mussel transplant experiment revealed overall reduced growth rates of individuals, and higher mortality rates arriong larger mussels. At the Population level, large decreases in densities and cover of mussels were correlated with dissolved oxygen concentrations, leading to extinction at one site and reductions of over ail order of magnitude at others. Within one year,

seven of the eight remaining populations were edged to extinction, and the previously extinct population was recolonized. At the community level, a predator exclusion experiment indicated that predation was an unimportant source of mussel mortality during the hypoxic period, in part due to the emigration of sea stars, as predicted by tile Consumer Stress Model. However, mussels were too intolerant to hypoxia to have a net benefit from the predation refuge: The seasonal (summer) occurrence of hypoxia allowed sea stars to return following a lag, as predicted by a stress return time model, and the resumption of predation contributed to the subsequent extinction of mussel populations. At the ecosystem level, the initial filtration rate of the mussel reefs was estimated at 134.6 X 10(6) m(3)/d, equivalent to filtering the Volume of the bay 1.3 times during the 26-d average residence time. That function was reduced by > 75% following hypoxia. The effect of hypoxia on each level of organization had consequences at others. For example, size-specific mortality and decreased growth of individuals, and reduced filtration capacity of reefs, indicated a loss of the ability of mussels to entrain planktonic productivity and potential to control future eutrophication and hypoxia. Our study quantified patterns of loss and identified pathways within ail integrative framework of feedbacks, Summarized in a conceptual model that is applicable to similar foundation species subjected to environmental stress.

L4 ANSWER 7 OF 65 SCISEARCH COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 2006:834427 SCISEARCH
THE GENUINE ARTICLE: 079TO
TITLE: Seroma prevention using Mytilus edulis protein in a rat mastectomy model
AUTHOR: Chung T L; Holton L H; Goldberg N H; Silverman R P (Reprint)
CORPORATE SOURCE: Univ Maryland, Med Ctr, Div Plast & Reconstruct Surg, 22 S Greene St, S8D12, Baltimore, MD 21201 USA (Reprint); Univ Maryland, Med Ctr, Div Plast & Reconstruct Surg, Baltimore, MD 21201 USA
rsilverman@smail.umaryland.edu
COUNTRY OF AUTHOR: USA
SOURCE: BREAST JOURNAL, (SEP-OCT 2006) Vol. 12, No. 5, pp. 442-445
ISSN: 1075-122X.
PUBLISHER: BLACKWELL PUBLISHING, 9600 GARSINGTON RD, OXFORD OX4 2DQ, OXON, ENGLAND.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 23
ENTRY DATE: Entered STN: 15 Sep 2006
Last Updated on STN: 15 Sep 2006
*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*

AB Seroma formation is common following mastectomy and autologous breast reconstruction and is a potential cause of significant morbidity in patients. For this reason, many methods have been investigated to prevent this complication. BD Cell-Tak is a tissue adhesive formulated from the proteins excreted by the marine mussel Mytilus edulis. The purpose of this study was to determine if Cell-Tak is able to prevent seroma formation in a rat mastectomy seroma model. Twenty Sprague-Dawley rats underwent unilateral radical mastectomy, partial axillary lymph node dissection, and disruption of the dermal lymphatics. The animals were randomly assigned to either control (n = 10) or experimental groups (n = 10). The experimental animals received 0.3 ml of the topical adhesive in the wound prior to closure, whereas control animals received no treatment. On postoperative day 7, seroma collections were aspirated and quantified and the tissue flaps were sent for histologic analysis. The control rats had a mean seroma volume of 5.3 +/- 2.6 ml, whereas the rats treated with Cell-Tak tissue adhesive had a mean

seroma volume of 1.8 +/- 1.5 ml ($p < 0.004$). Histologic analysis revealed mild inflammation consistent with postoperative changes in both groups and no evidence of foreign body reaction to the adhesive. BD Cell-Tak tissue adhesive significantly reduces seroma formation in the rat mastectomy model. This tissue adhesive may prove beneficial in patients undergoing mastectomy with or without breast reconstruction.

L4 ANSWER 8 OF 65 SCISEARCH COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 2006:159577 SCISEARCH
THE GENUINE ARTICLE: 009XS
TITLE: The potential of ecotoxicoproteomics in environmental monitoring: Biomarker profiling in mussel plasma using proteinchip array technology
AUTHOR: Bjornstad A (Reprint); Larsen B K; Skadsheim A; Jones M B; Andersen O K
CORPORATE SOURCE: RF Akvamiljo, Mekjarvik 12, N-4070 Randaberg, Norway (Reprint); RF Akvamiljo, N-4070 Randaberg, Norway; Univ Plymouth, Sch Biol Sci, Plymouth, Devon, England anne.bjornstad@rf.no
COUNTRY OF AUTHOR: Norway; England
SOURCE: JOURNAL OF TOXICOLOGY AND ENVIRONMENTAL HEALTH-PART A-CURRENT ISSUES, (8 JAN 2006) Vol. 69, No. 1-2, pp. 77-96

ISSN: 1528-7394.
PUBLISHER: TAYLOR & FRANCIS INC, 325 CHESTNUT ST, SUITE 800, PHILADELPHIA, PA 19106 USA.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 64
ENTRY DATE: Entered STN: 16 Feb 2006
Last Updated on STN: 16 Feb 2006

*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*

AB New global technologies, allowing simultaneous analysis of thousands of genes, proteins, and metabolites (so-called "omics" technologies), are being adopted rapidly by industry, academia, and regulatory agencies. This study evaluated the potential of proteomics in ecotoxicological research (i.e., ecotoxicoproteomics). Filter-feeding mussels ( Mytilus edulis) were exposed continuously for 3 wk to oil, or oil spiked with alkylphenols and extra polycyclic aromatic hydrocarbons. The influence of chronic exposure on mussel plasma protein expression was investigated utilizing ProteinChip array technology in combination with surface-enhanced laser desorption/ionization time-of-flight mass spectrometry (SELDI TOF MS). Results indicated that exposure to spiked oil had a more significant effect on protein expression in mussels than oil alone. In total, 83 mass peaks ( intact or modified proteins/peptides) were significantly altered by spiked oil, while 49 were altered by oil. In exposed organisms, the majority of peaks were upregulated compared to controls (i.e., 69% in oil and 71% in spiked oil). Some peaks ( 32 in total) were affected by both treatments; however, the degree of response was higher in the spiked oil group for 25 of the 32 commonly affected features. Additionally, certain peaks revealed exposure- or gender-specific responses. Multivariate analysis with regression tree-based methods detected protein patterns associated with exposure that correctly classified masked samples with 90 - 95% accuracy. Similarly, 92% of females and 85% of males were correctly classified ( independent of exposure). Results indicate that proteomics have the potential to make a valuable contribution to environmental monitoring and risk assessment.

L4 ANSWER 9 OF 65 USPATFULL on STN

ACCESSION NUMBER: 2005:331412 USPATFULL
TITLE: Polymeric compositions and related methods of

use

INVENTOR(S): Messersmith, Phillip B., Clarendon Hills, IL, UNITED STATES
Dalsin, Jeffrey, Chicago, IL, UNITED STATES
Lin, Lijun, Stafford, TX, UNITED STATES
Lee, Bruce P., Chicago, IL, UNITED STATES
Huang, Kul, Chicago, IL, UNITED STATES

| | NUMBER | KIND | DATE | |
|---|---|---|---|---|
| PATENT INFORMATION: | US 2005288398 | A1 | 20051229 | |
| APPLICATION INFO.: | US 2005-68298 | A1 | 20050228 | (11) |

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2002-199960, filed on 19 Jul 2002, ABANDONED

| | NUMBER | DATE | |
|---|---|---|---|
| PRIORITY INFORMATION: | US 2001-306750P | 20010720 | (60) |
| | US 2002-373919P | 20020419 | (60) |
| | US 2004-549259P | 20040302 | (60) |
| | US 2004-548314P | 20040227 | (60) |

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: REINHART BOERNER VAN DEUREN S.C., ATTN: LINDA GABRIEL, DOCKET COORDINATOR, 1000 NORTH WATER STREET, SUITE 2100, MILWAUKEE, WI, 53202, US
NUMBER OF CLAIMS: 25
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 32 Drawing Page(s)
LINE COUNT: 3040
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Adhesive polymeric compositions which can comprise dihydroxyphenyl moieties and derivatives thereof, and related methods of use.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 10 OF 65 USPATFULL on STN
ACCESSION NUMBER: 2005:241100 USPATFULL
TITLE: Dinoflagellate karlotoxins, methods of isolation and uses thereof

INVENTOR(S): Place, Allen, Baltimore, MD, UNITED STATES
Deeds, Jonathan R., Laurel, MD, UNITED STATES

| | NUMBER | KIND | DATE | |
|---|---|---|---|---|
| PATENT INFORMATION: | US 2005209104 | A1 | 20050922 | |
| APPLICATION INFO.: | US 2003-525711 | A1 | 20030819 | (10) |
| | WO 2003-US25840 | | 20030819 | |
| | | | 20050523 | PCT 371 date |

| | NUMBER | DATE | |
|---|---|---|---|
| PRIORITY INFORMATION: | US 2002-404468P | 20020819 | (60) |

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Steven J Hultquist, Intellectual Property Technology Law, PO Box 14329, Research Triangle Park, NC, 27709, US
NUMBER OF CLAIMS: 26
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 25 Drawing Page(s)
LINE COUNT: 2194
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Disclosed are six dinoflagellate toxins isolated from Karlodinium micrum

and methods of isolating said toxins. The toxins are useful in killing cells, such as in the killing of tumor cells in an animal. Antibodies against these toxins allow detection of the toxins and the dinoflagellate as well as a method of neutralizing the toxin.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 11 OF 65 USPATFULL on STN
ACCESSION NUMBER: 2005:123878 USPATFULL
TITLE: Zeolite molecular sieves for the removal of toxins
INVENTOR(S): Frykman, Gregory K., Washington, DC, UNITED STATES
Gruett, Glenn H., New London, WI, UNITED STATES
PATENT ASSIGNEE(S): Framework Therapeutics, LLC (U.S. corporation)

| | NUMBER | KIND | DATE | |
|---|---|---|---|---|
| PATENT INFORMATION: | US 2005106267 | A1 | 20050519 | |
| APPLICATION INFO.: | US 2004-965799 | A1 | 20041018 | (10) |

| | NUMBER | DATE |
|---|---|---|
| PRIORITY INFORMATION: | US 2003-512395P | 20031020 (60) |

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: FOLEY AND LARDNER, SUITE 500, 3000 K STREET NW, WASHINGTON, DC, 20007, US
NUMBER OF CLAIMS: 19
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Page(s)
LINE COUNT: 4018
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Medical use of natural and synthetic zeolites for treatment, prevention, and palliation in humans or animals of deleterious concentrations of ammonia, mercaptans, heavy metals and other toxins by oral administration.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 12 OF 65 USPATFULL on STN
ACCESSION NUMBER: 2005:295268 USPATFULL
TITLE: Congener independent detection of microcystin and nodularin congeners
INVENTOR(S): Dietrich, Daniel R., Unterdorf, CH-8566 Neuwilen, SWITZERLAND
Fischer, Werner, Epalinges, SWITZERLAND
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PATENT ASSIGNEE(S): Dietrich, Daniel R., Neuwilen, SWITZERLAND (non-U.S. individual)
The Regent of the University of California, Oakland, CA, UNITED STATES (U.S. corporation)
New Zealand Agricultural Research Institute Limited, Hamilton, NEW ZEALAND (non-U.S. corporation)

| | NUMBER | KIND | DATE | |
|---|---|---|---|---|
| PATENT INFORMATION: | US 6967240 | B1 | 20051122 | |
| | WO 2001018059 | | 20010315 | |
| APPLICATION INFO.: | US 2002-70302 | | 20000906 | (10) |
| | WO 2000-EP8711 | | 20000906 | |

20020501 PCT 371 date

| | NUMBER | DATE |
|---|---|---|
| PRIORITY INFORMATION: | EP 2000-99116881 | 20000906 |

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Ceperley, Mary E.
LEGAL REPRESENTATIVE: Weingarten, Schurgin, Gagnebin & Lebovici LLP
NUMBER OF CLAIMS: 14
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 7 Drawing Figure(s); 7 Drawing Page(s)
LINE COUNT: 1003
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to a protienaceous compound or functionally active derivative or part thereof having a binding site for a group represented by formula (I) which is part of a group of toxins derived from various cyanobacteria, to a method for its production, to diagnostic kits and to an affinty matrix (e.g. for use in immunoaffinity columns, online detection and purifications devices) containing the proteinaceous compound as well as to methods for substantially decreasing the amount of a compound containing the group represented by formula (I) in fluids or for concentrating compounds, e.g. toxins, containing the group represented by formula (I) from fluids such as crude water samples, extracts of algae or other tissue samples, e.g. to determine toxin concentrations.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 13 OF 65 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 2005:290077 BIOSIS
DOCUMENT NUMBER: PREV200510078362
TITLE: Conservation of cancer genes in the marine invertebrate Mytilus edulis.
AUTHOR(S): Ciocan, Corina M.; Rotchell, Jeanette M. [Reprint Author]
CORPORATE SOURCE: Univ Sussex, Environm Res Ctr, Dept Biol and Environm Sci, Brighton BN1 9QJ, E Sussex, UK
j.rothchell@sussex.ac.uk
SOURCE: Environmental Science & Technology, (MAY 1 2005) Vol. 39, No. 9, pp. 3029-3033.
CODEN: ESTHAG. ISSN: 0013-936X.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 4 Aug 2005
Last Updated on STN: 4 Aug 2005

AB Mussels are susceptible to a wide range of environmental toxicants, including carcinogens, and thus are often employed as bioindicator species, To elucidate the molecular aetiology of such neoplastic damage, we have cloned Mytilus edulis homologues of the vertebrate ras protooncogene, and p53 tumor suppressor gene. The M. edulis ras cDNA encodes a predicted protein of 184 amino acids. The DNA sequence analysis with vertebrate ras sequences demonstrates that the M. edulis ras cDNA is highly conserved in regions of functional importance, including mutational hot spots. The partial p53 sequence also demonstrates that M. edulis p53 is highly conserved in two regions of functional importance and that these regions also include four of the five mutational hot spots for this gene, In contrast, the M, edulis p53 sequence shows little similarity to the other published invertebrate p53-like sequences. The cancer gene sequences characterized herein will allow development of specific biomarkers of genotoxic damage.

L4 ANSWER 14 OF 65 AQUASCI COPYRIGHT 2007 FAO (On behalf of the ASFA Advisory Board). All rights reserved. on STN DUPLICATE 3

ACCESSION NUMBER: 2006:8994 AQUASCI
DOCUMENT NUMBER: ASFA1 2006
TITLE: Protective refuges for seeded juvenile scallops (Placopecten magellanicus) from sea star (Asterias spp.) and crab (Cancer irroratus and Carcinus maenas) predation.
AUTHOR: Wong, M.C.; Barbeau, M.A.; Hennigar, A.W.; Robinson, S.M.C.
CORPORATE SOURCE: Department of Biology, University of New Brunswick Fredericton, NB E3B 1E6 Canada; E-mail: melisa.wong@unb.ca
SOURCE: Canadian Journal of Fisheries and Aquatic Sciences [Can. J. Fish. Aquat. Sci./J. Can. Sci. Halieut. Aquat.], (20050000) vol. 62, no. 8, pp. 1766-1781.
ISSN: 0706-652X.
DOCUMENT TYPE: Journal
FILE SEGMENT: ASFA1
LANGUAGE: English
SUMMARY LANGUAGE: English; French
AB Two methods to provide refuge for seeded juvenile sea scallops (Placopecten magellanicus) from sea star (Asterias spp.) and crab ( Cancer irroratus and Carcinus maenas) predation were examined by considering 1) initial density of seeded scallops and 2) presence of an alternative prey species (blue mussel (Mytilus edulis)). In the seeding density experiment, underwater plots were seeded with different densities of scallops (1, 6, and 69 times m super(-2)). In the alternative prey experiment, plots were seeded with one density of scallops (5 times m super(-2)) and different densities of mussels (0, 5, and 30 times m super(-2)). Animal densities were monitored over time, and predation rate was estimated using tethered scallops. In the seeding density experiment, scallop density in plots initially seeded with 6 scallops times m super(-2) decreased at the slowest rate. Estimated predation rate of scallops in all plots tended to increase with prey density. In the alternative prey experiment, mussel density decreased immediately after seeding, while scallop density decreased after approximately 1 week. Estimated predation rate of scallops decreased with increasing mussel density. Also, sea stars aggregated in plots containing scallops and mussels. In both experiments, 17% - 58% of seeded scallops were lost to dispersal, and final scallop density was approximately 1 times m super(-2), independent of treatment.

L4 ANSWER 15 OF 65 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 2005:350285 BIOSIS
DOCUMENT NUMBER: PREV200510133634
TITLE: Identification and phylogenetic comparison of p53 in two distinct mussel species (Mytilus).
AUTHOR(S): Muttray, Annette F. [Reprint Author]; Cox, Rachel L.; St-Jean, Sylvie; van Poppelen, Paul; Reinisch, Carol L.; Baldwin, Susan A.
CORPORATE SOURCE: Univ British Columbia, Dept Biol and Chem Engn, 2216 Main Mall, Vancouver, BC V6T 1Z4, Canada amuttray@vcn.bc.ca
SOURCE: Comparative Biochemistry and Physiology Part C Toxicology & Pharmacology, (FEB 2005) Vol. 140, No. 2, pp. 237-250.
ISSN: 1532-0456.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 8 Sep 2005
Last Updated on STN: 8 Sep 2005
AB The extent to which humans and wildlife are exposed to anthropogenic challenges is an important focus of environmental research. Potential use of p53 gene family marker(s) for aquatic environmental effects monitoring is the long-term goal of this research. The p53 gene is a tumor suppressor gene that is fundamental in cell cycle control and apoptosis.

It is mutated or differentially expressed in about 50% of all human cancers and p53 family members are differentially expressed in leukemic clams. Here, we report the identification and characterization of the p53 gene in two species of Mytilus, Mytilus edulis and Mytilus trossulus, using RT-PCR with degenerate and specific primers to conserved regions of the gene. The Mytilus p53 proteins are 99.8% identical and closely related to clam (Mya) p53. In particular, the 3 ' untranslated regions were examined to gain understanding of potential post-transcriptional regulatory pathways of p53 expression. We found nuclear and cytoplasmic polyadenylation elements, adenylate/uridylate-rich elements, and a K-box motif previously identified in other, unrelated genes. We also identified a new motif in the p53 3 ' UTR which is highly conserved across vertebrate and invertebrate species. Differences between the p53 genes of the two Mytilus species may be part of genetic determinants underlying variation in leukemia prevalence and/or development, but this requires further investigation. In conclusion, the conserved regions in these p53 paralogues may represent potential control points in gene expression. This information provides a critical first step in the evaluation of p53 expression as a potential marker for environmental assessment. 

L4 ANSWER 16 OF 65 BIOSIS  on STN

ACCESSION NUMBER: 2005:222604 BIOSIS
DOCUMENT NUMBER: PREV200510015677
TITLE: Identification and characterisation of a multidrug resistance-related protein mRNA in the blue mussel Mytilus edulis.
AUTHOR(S): Luedeking, Alexander; Van Noorden, Cornelis J. F.; Koehler, Angela [Reprint Author]
CORPORATE SOURCE: Fdn Alfred Wegener Inst Polar and Marine Res, Dept Ecotoxicol Biol Anstalt Helgoland, Handelshafen 12, D-27570 Bremerhaven, Germany
akoehler@awi-bremerhaven.de
SOURCE: Marine Ecology Progress Series, (2005) Vol. 286, pp. 167-175.
CODEN: MESEDT. ISSN: 0171-8630.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 16 Jun 2005
Last Updated on STN: 16 Jun 2005

AB Membrane-associated transport proteins were discovered in the 1970s in mammals and were considered to be expressed in response to chemotherapy during cancer treatment. Prominent members of this class of proteins are multidrug resistance-related or -associated proteins (MRPs). Besides their expression in cancer cells, MRPs are ubiquitously expressed in normal tissues and are active transporters of reduced glutathione, glucuronate and organic anions of toxicological relevance, either conjugated or unconjugated with sulphate. MRPs may also provide aquatic organisms with resistance to chemicals in a polluted environment by binding xenobiotics and excreting them from cells in an energy-dependent manner. The present study investigated expression of MRPs as part of the mulfixenobiotic resistance (MXR) system in the blue mussel Mytilus edulis. We isolated and characterised 2 putative mrp cDNA fragments, mrp1 and mrp2, which showed 50 to 70% homology on the protein level with MRPs of other species. The mrp1 fragment could not be linked with any mRNA in Northern blots of M. edulis tissues, whereas the mrp2 fragment hybridised with an mRNA of approximately 4.6 kb. Mrp2 showed tissue-specific expression patterns. Highest expression was found in digestive gland and gill tissue. Its expression could be induced 2-fold by the model carcinogen 2-acetylaminofluorene (AAF), whereas mrp1 expression was unaffected. The cDNA fragment of the inducible form was then integrated into a multiplex PCR system for analysis of multixenobiotic resistance in the blue

mussel, in concert with other detoxification and biotransformation genes.

L4 ANSWER 17 OF 65 IFIPAT COPYRIGHT 2007 IFI on STN DUPLICATE 4

AN 10721676 IFIPAT;IFIUDB;IFICDB

TITLE: METHODS FOR TREATING CANCER USING PERNA CANALICULUS COMPONENT(S) AND EXTRACTS OF PERNA CANALICULUS; ADMINISTERING PERNA CANALICULUS AND/OR MYTILUS EDULIS MUSSEL COMPONENT WHICH EXHIBITS CYTOTOXICITY TO MALIGNANT TUMOR CELLS

INVENTOR(S): Kendall; Roger V., Westford, VT, US
Lawson; John, Clemson, SC, US

PATENT ASSIGNEE(S): Unassigned

PATENT ASSIGNEE PROBABLE: Food Science Corp (Probable)

AGENT: MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON BLVD., SUITE 1400, ARLINGTON, VA, 22201, US

| | NUMBER | PK | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 2004228926 | A1 | 20041118 |
| APPLICATION INFORMATION: | US 2004-800016 | | 20040315 |

| | NUMBER | DATE |
|---|---|---|
| PRIORITY APPLN. INFO.: | US 2003-454340P | 20030314 (Provisional) |
| FAMILY INFORMATION: | US 2004228926 | 20041118 |

DOCUMENT TYPE: Utility
Patent Application - First Publication

FILE SEGMENT: CHEMICAL
APPLICATION

PARENT CASE DATA:

This application claims the benefit of the filing date of U.S. Provisional Application Serial No. 60/454,340 filed Mar. 14, 2003. The invention includes the use of at least one component derived from Perna canaliculus to treat ***cancer*** and/or cancerous tumors in man or animals. The invention also includes novel compositions of extracts from Perna canaliculus, methods of making these novel compositions, and the use of these compositions in the described methods. Components and extracts of Blue mussels, i.e., Mytilus edulis, can analogously be provided and used according to the invention and all references made herein to Perna canaliculus or PCE should be understood to include Mytilus edulis and components or extracts thereof.

NUMBER OF CLAIMS: 26 15 Figure(s).

DESCRIPTION OF FIGURES:

FIG. 1. 50% inhibition of Cox-1 is seen between the 1:200 and 1:400 dilutions of the Tween extract and between the 1:10 and 1:100 dilutions of the Glycogen extract.

FIG. 2. 50% inhibition of Cox-2 is seen between the 1:200 and 1:400 dilutions of the Tween extract and between the 1:10 and 1:100 dilutions of the Glycogen extract.

FIG. 3. Significant inhibition of tumors is seen at the 1:10 and 1:00 dilutions of Tween extract.

FIG. 4. Significant inhibition of potato tumors is seen with the 1:10 concentration of the Glycogen extract.

FIG. 5. The fraction of Tween extract retained by the 100K filter shows significant inhibition of potato tumors at both the 1:10 and 1:100 concentrations.

FIG. 6. The pH of the Tween extract is altered using 10N NaOH and 10N HCl. Significant inhibition of potato tumors occurs at both the 1:10 and 1:100 concentrations of the pH 2>100 K sample, at the 1:10 concentration of the pH 2

100K-10K sample, at the 1:10 and 1:100 concentrations of the pH 2<10K sample, and at the 1:10 and 1:100 concentrations of the pH 9>100 K sample.
FIG. 7. The pH of the Tween extract is altered using 1 N NaOH before filtering. These extracts are tested at a concentration of 1:10. Significant inhibition of potato tumors is seen at the pH 9>100 K sample, the pH 8>100 K sample, and the pH 7>100K sample.
FIG. 8. The Tween extract is treated with Pronase and Proteinase K independently and incubated at 37 degrees C for time periods ranging from 0-48 hours. The enzyme activity is halted by incubating tubes at 80 degrees C for 15 minutes. Tx is untreated full strength Tween extract that is incubated along with the other samples for 48 hours. Samples are tested at a concentration of 1:10. No significant change in activity is seen in any sample upon treatment with either proteolytic enzyme.
FIG. 9. Significant inhibition of tumors is seen with the >300K and 300K-100K fractions of the Tween extract. Significant inhibition of tumors is seen with the >300K fraction of the Glycogen extract. Campto is 0.1 ppm Camptothecin.
FIG. 10. The fraction of glycogen extract retained by the 100K filter shows significant inhibition of potato tumors at both the 1:10 and 1:100 concentrations. The fraction of glycogen extract that passed through the 100K filter but was retained by the 30K filter shows slightly significant inhibition of potato tumors at both the 1:10 and 1:100 concentrations.
FIG. 11. The pH of the glycogen extract is altered using 10 N NaOH and 10 N HCl before filtering. Significant inhibition of potato tumors is seen at the 1:10 and 1:100 concentrations of the pH 2>100 K sample, at the 1:10 and 1:100 concentrations of the pH 9>100 K sample, and at the 1:10 concentration of the pH 9<10K sample
FIG. 12. The pH of the glycogen extract is altered using 1 N NaOH before filtering. These extracts are tested at a concentration of 1:10. Significant inhibition of potato tumors is seen at the pH 9>100 K sample, the pH 9 100K-10K sample, the pH 8>100 K sample, the pH 7>100K sample, and the pH 7 100K-10K sample.
FIG. 13. The glycogen extract is treated with Pronase and Proteinase K independently and incubated at 37 degrees C for time periods ranging from 0-48 hours. The enzyme activity is halted by incubating tubes at 80 degrees C for 15 minutes. Gx is untreated full strength glycogen extract that was incubated along with the other samples for 48 hours. Samples were tested at a concentration of 1:10. No significant change in activity is seen in any sample upon treatment with either proteolytic enzyme.
FIG. 14. Pena extracts at the indicated % concentrations are shown to inhibit cervical carcinoma (SiHa) cells.
FIG. 15. Perna extracts at the indicated % concentrations are shown to inhibit osteocarcinoma cells (MG-63).

AB Described are methods for administering at least one component derived from Perna canaliculus or Mytilus edulis, particularly as an extract, to treat cancer and cancerous tumors in man or animals. Also described are novel compositions of extracts from Perna canaliculus or Mytilus edulis, methods of making these novel compositions, and the use of these compositions in the described methods.

CLMN 26 15 Figure(s).

FIG. 1. 50% inhibition of Cox-1 is seen between the 1:200 and 1:400 dilutions of the Tween extract and between the 1:10 and 1:100 dilutions of the Glycogen extract.
FIG. 2. 50% inhibition of Cox-2 is seen between the 1:200 and 1:400 dilutions of the Tween extract and between the 1:10 and 1:100 dilutions of the Glycogen extract.
FIG. 3. Significant inhibition of tumors is seen at the 1:10 and 1:00 dilutions of Tween extract.
FIG. 4. Significant inhibition of potato tumors is seen with the 1:10 concentration of the Glycogen extract.
FIG. 5. The fraction of Tween extract retained by the 100K filter shows significant inhibition of potato tumors at both the 1:10 and 1:100 concentrations.
FIG. 6. The pH of the Tween extract is altered using 10N NaOH and 10N HCl.

Significant inhibition of potato tumors occurs at both the 1:10 and 1:100 concentrations of the pH 2>100 K sample, at the 1:10 concentration of the pH 2 100K-10K sample, at the 1:10 and 1:100 concentrations of the pH 2<10K sample, and at the 1:10 and 1:100 concentrations of the pH 9>100 K sample.

FIG. 7. The pH of the Tween extract is altered using 1 N NaOH before filtering. These extracts are tested at a concentration of 1:10. Significant inhibition of potato tumors is seen at the pH 9>100 K sample, the pH 8>100 K sample, and the pH 7>100K sample.

FIG. 8. The Tween extract is treated with Pronase and Proteinase K independently and incubated at 37 degrees C for time periods ranging from 0-48 hours. The enzyme activity is halted by incubating tubes at 80 degrees C for 15 minutes. Tx is untreated full strength Tween extract that is incubated along with the other samples for 48 hours. Samples are tested at a concentration of 1:10. No significant change in activity is seen in any sample upon treatment with either proteolytic enzyme.

FIG. 9. Significant inhibition of tumors is seen with the >300K and 300K-100K fractions of the Tween extract. Significant inhibition of tumors is seen with the >300K fraction of the Glycogen extract. Campto is 0.1 ppm Camptothecin.

FIG. 10. The fraction of glycogen extract retained by the 100K filter shows significant inhibition of potato tumors at both the 1:10 and 1:100 concentrations. The fraction of glycogen extract that passed through the 100K filter but was retained by the 30K filter shows slightly significant inhibition of potato tumors at both the 1:10 and 1:100 concentrations.

FIG. 11. The pH of the glycogen extract is altered using 10 N NaOH and 10 N HCl before filtering. Significant inhibition of potato tumors is seen at the 1:10 and 1:100 concentrations of the pH 2>100 K sample, at the 1:10 and 1:100 concentrations of the pH 9>100 K sample, and at the 1:10 concentration of the pH 9<10K sample

FIG. 12. The pH of the glycogen extract is altered using 1 N NaOH before filtering. These extracts are tested at a concentration of 1:10. Significant inhibition of potato tumors is seen at the pH 9>100 K sample, the pH 9 100K-10K sample, the pH 8>100 K sample, the pH 7>100K sample, and the pH 7 100K-10K sample.

FIG. 13. The glycogen extract is treated with Pronase and Proteinase K independently and incubated at 37 degrees C for time periods ranging from 0-48 hours. The enzyme activity is halted by incubating tubes at 80 degrees C for 15 minutes. Gx is untreated full strength glycogen extract that was incubated along with the other samples for 48 hours. Samples were tested at a concentration of 1:10. No significant change in activity is seen in any sample upon treatment with either proteolytic enzyme.

FIG. 14. Pena extracts at the indicated % concentrations are shown to inhibit cervical carcinoma (SiHa) cells.

FIG. 15. Perna extracts at the indicated % concentrations are shown to inhibit osteocarcinoma cells (MG-63).

L4 ANSWER 18 OF 65 USPATFULL on STN

ACCESSION NUMBER: 2004:178967 USPATFULL

TITLE: Alloferons - immunomodulatory peptides

INVENTOR(S): Kim, Soo In, Seoul, KOREA, REPUBLIC OF
Chernysh, Sergey Ivanovich, St. Petersburg, RUSSIAN FEDERATION
Bekker, German Petrovich, Essen, GERMANY, FEDERAL REPUBLIC OF
Makhaldiani, Natalia Borisovna, Moscow, RUSSIAN FEDERATION
Hoffman, Jules, Strasbourg, FRANCE
Bulet, Philippe, Vendenhem, FRANCE

PATENT ASSIGNEE(S): Entopharm Co., Ltd., Seoul, KOREA, REPUBLIC OF (non-U.S. corporation)

| NUMBER | KIND | DATE |
|---|---|---|

PATENT INFORMATION: US 2004138137 A1 20040715
APPLICATION INFO.: US 2003-742864 A1 20031223 (10)
RELATED APPLN. INFO.: Division of Ser. No. US 2000-748114, filed on 27 Dec 2000, GRANTED, Pat. No. US 6692747

| | NUMBER | DATE |
|---|---|---|
| PRIORITY INFORMATION: | RU 1999-127725 | 19991227 |

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Patricia Granados, Heller Ehrman White & McAuliffe LLP, 1666 K Street, N.W., Suite 300, Washington, DC, 20006
NUMBER OF CLAIMS: 16
EXEMPLARY CLAIM: 1
LINE COUNT: 1282
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention belongs to the field of biologically active peptides specifically stimuláting antiviral, antimicrobial and antitumor activity of the human and animal immune system.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 19 OF 65 USPATFULL on STN
ACCESSION NUMBER: 2004:108604 USPATFULL
TITLE: Medical prosthetic devices having improved biocompatibility
INVENTOR(S): Ellingsen, Jan Eirik, Bekkestua, NORWAY
Lyngstadaas, Staale Petter, Nesoddtangen, NORWAY
PATENT ASSIGNEE(S): Astra Tech AB, Molndal, NORWAY (non-U.S. corporation)

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 2004083006 | A1 | 20040429 |
| APPLICATION INFO.: | US 2003-410660 | A1 | 20030409 (10) |

| | NUMBER | DATE |
|---|---|---|
| PRIORITY INFORMATION: | DK 2002-515 | 20020409 |
| | US 2002-375928P | 20020425 (60) |

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: LAHIVE & COCKFIELD, LLP., 28 STATE STREET, BOSTON, MA, 02109
NUMBER OF CLAIMS: 26
EXEMPLARY CLAIM: 1
LINE COUNT: 1458
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to a medical prosthetic device comprising a metal material, such as titanium or an alloy thereof, where the surface parts of the metal material are coated with a layer of a corresponding hydroxide material, such as titanium hydroxide. Preferably, the hydroxide layer comprises one or more biomolecule substances associated therewith.

The invention also relates to an electrolytic process for the preparation of a medical prosthetic device.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 20 OF 65 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 2004-718717 [70] WPIDS
DOC. NO. CPI: C2004-253220 [70]
TITLE: Use of a component derived from Perna canaliculus or mytilus edulis mussel for

treating cancer in mammals
DERWENT CLASS: A96; B04
INVENTOR: KENDALL R V; LAWSON J
PATENT ASSIGNEE: (FOOD-N) FOODSCIENCE CORP; (KEND-I) KENDALL R V; (LAWS-I) LAWSON J
COUNTRY COUNT: 107

PATENT INFO ABBR.:

| PATENT NO | KIND | DATE | WEEK | LA | PG | MAIN IPC |
|---|---|---|---|---|---|---|
| WO 2004082614 | A2 | 20040930 | (200470)* | EN | 33[15] | |
| US 20040228926 | A1 | 20041118 | (200477) | EN | | |
| EP 1603405 | A2 | 20051214 | (200582) | EN | | |
| AU 2004222337 | A1 | 20040930 | (200624) | EN | | |
| JP 2006520389 | W | 20060907 | (200660) | JA | 18 | |

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION | DATE |
|---|---|---|---|
| WO 2004082614 | A2 | WO 2004-US7795 | 20040315 |
| US 20040228926 | A1 Provisional | US 2003-454340P | 20030314 |
| AU 2004222337 | A1 | AU 2004-222337 | 20040315 |
| EP 1603405 | A2 | EP 2004-720785 | 20040315 |
| US 20040228926 | A1 | US 2004-800016 | 20040315 |
| EP 1603405 | A2 | WO 2004-US7795 | 20040315 |
| JP 2006520389 | W | WO 2004-US7795 | 20040315 |
| JP 2006520389 | W | JP 2006-507178 | 20040315 |

FILING DETAILS:

| PATENT NO | KIND | | PATENT NO | |
|---|---|---|---|---|
| EP 1603405 | A2 | Based on | WO 2004082614 | A |
| AU 2004222337 | A1 | Based on | WO 2004082614 | A |
| JP 2006520389 | W | Based on | WO 2004082614 | A |

PRIORITY APPLN. INFO: US 2003-454340P 20030314
US 2004-800016 20040315
AN 2004-718717 [70] WPIDS
AB WO 2004082614 A2 UPAB: 20060203
NOVELTY - Treatment of malignant tumor cancer involves the administration of a component (I) from Perna canaliculus or Mylitus edulis mussel.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) a composition (C1) comprising an extract of freeze-dried-ground whole Perna canaliculus or Mytilus edulis mussel extracted with a polyoxyethylene sorbitan ester, non-ionic surfactant (A); and

(2) preparing (C1) involving agitating an aqueous solution of the ground freeze-dried whole mussel with (A), followed by centrifuging the mixture, decanting one or more time to obtain the liquid portion as the extract and optionally filtering one or more times to remove small solids remaining in the liquid portion extract.

ACTIVITY - Cytostatic.

MECHANISM OF ACTION - Cancer cell growth inhibitor; Cyclooxygenase (COX-1 and COX-2) inhibitor.

USE - For treating malignant tumor cancer such as leukemia, osteosarcoma, cervical cancer, kidney tumor, monocytic leukemia, prostratic cancer, estrogen-dependent/non-estrogen dependent breast cancer, melanoma or bladder cancer in humans (claimed) and other animals.

ADVANTAGE - The extracts showed potent and a very broad anti-cancer activity without causing any damage to the normal cells. They have a desired pH range and have good efficacy even when exposed to the acidic environment of the gastrointestinal tract.

L4 ANSWER 21 OF 65 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 2005:62642 BIOSIS
DOCUMENT NUMBER: PREV200500060713
TITLE: The Hudson-Raritan Estuary as a crossroads for distribution of blue (Callinectes sapidus), lady (Ovalipes ocellatus), and Atlantic rock (Cancer irroratus) crabs.
AUTHOR(S): Stehlik, Linda L. [Reprint Author]; Pikanowski, Robert A.; McMillan, Donald G.
CORPORATE SOURCE: Natl Marine Fisheries ServNE Fisheries Sci CtrJames J Howard Marine Sci Lab, NOAA, 74 Magruder Rd, Highlands, NJ, 07732, USA
Linda.Stehlik@noaa.gov
SOURCE: Fishery Bulletin (Seattle), (October 2004) Vol. 102, No. 4, pp. 693-710. print.
ISSN: 0090-0656 (ISSN print).
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Feb 2005
Last Updated on STN: 9 Feb 2005

AB Blue (Callinectes sapidus) (Portunidae), lady (Ovalipes ocellatus) (Portunidae), and Atlantic rock (Cancer irroratus) (Cancridae) crabs inhabit estuaries on the northeast United States coast for parts or all of their life cycles. Their distributions overlap or cross during certain seasons. During a 1991-94 monthly otter trawl survey in the Hudson-Raritan Estuary between New York and New Jersey, blue and lady crabs were collected in warmer months and Atlantic rock crabs in colder months. Sex ratios, male: female, of mature crabs were 1:2.0 for blue crabs, 1:3.1 for lady crabs, and 21.4:1 for Atlantic rock crabs. Crabs, 1286 in total, were sub-sampled for dietary analysis, and the dominant prey taxa for all crabs, by volume of foregut contents, were mollusks and crustaceans. The proportion of amphipods and shrimp in diets decreased as crab size increased. Trophic niche breadth was widest for blue crabs, narrower for lady crabs, and narrowest for Atlantic rock crabs. Trophic overlap was lowest between lady crabs and Atlantic rock crabs, mainly because of frequent consumption of the dwarf surfclam (Mulinia lateralis) by the former and the blue mussel (Mytilus edulis) by the latter. The result of cluster analysis showed that size class and location of capture of predators in the estuary were more influential on diet than the species or sex of the predators.

L4 ANSWER 22 OF 65 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 2005:65646 BIOSIS
DOCUMENT NUMBER: PREV200500062962
TITLE: Diarrhoetic shellfish poisoning toxins in Cancer pagurus Linnaeus, 1758 (Brachyura, Cancridae) in Norwegian waters.
AUTHOR(S): Castberg, Tonje [Reprint Author]; Torgersen, Trine; Aasen, John; Aune, Tore; Naustvoll, Lars-Joban
CORPORATE SOURCE: Flodevigen Res Stn, Inst Marine Res, NO-4817, His, Norway
Tonje.Castberg@imr.no
SOURCE: Sarsia, (October 1 2004) Vol. 89, No. 5, pp. 311-317. print.
CODEN: SARIA3. ISSN: 0036-4827.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Feb 2005
Last Updated on STN: 9 Feb 2005

AB During the summer of 2002 there were several episodes of human intoxication after consumption of brown crabs (Cancer pagurus) caught along the Norwegian south coast. The toxic agent was one of the well-known phycotoxins, the diarrhoetic shellfish poisoning (DSP) complex, routinely found in blue mussels (Mytilus edulis). This toxin has not previously been documented in brown crabs. The route and rate of toxin accumulation as well as the rate of toxin depuration in crabs were determined in laboratory experiments. The DSP toxins only accumulate in digestive organs (hepatopancreas, HP) in the crabs. When fed with blue mussels containing more than 1000 mug of okadaic acid equivalents kg-1, the crabs accumulated 3-30% of the toxin. After 2 weeks, the average toxin level in the crabs exceeded the preliminary limit of DSP toxins at 400 mug okadaic acid equivalents kg-1 HP established by the Norwegian Food Safety Authority. A 50% reduction in toxin level was observed after 14-18 days when the crabs were fed fish instead of toxic mussels.

L4 ANSWER 23 OF 65 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 2005:51452 BIOSIS
DOCUMENT NUMBER: PREV200500052265
TITLE: Cell responses to xenobiotics: Comparison of MCF7 multi-drug- and mussel blood cell multi-xenobiotic-defense mechanisms.
AUTHOR(S): Marin, Matthieu [Reprint Author]; Legros, Helene; Poret, Agns; Leboulenger, Francois; Le Foll, Frank
CORPORATE SOURCE: IFRMP 23UPRES EA 3222Lab Ecotoxicol, Univ Havre, BP 540, F-76058, Le Havre, France
matthieu.marin@univ-lehavre.fr
SOURCE: Marine Environmental Research, (August 2004) Vol. 58, No. 2-5, pp. 209-213. print.
CODEN: MERSDW. ISSN: 0141-1136.
DOCUMENT TYPE: Article
Conference; (Meeting Paper)
LANGUAGE: English
ENTRY DATE: Entered STN: 3 Feb 2005
Last Updated on STN: 3 Feb 2005

AB Multi-drug resistance (MDR) in MCF7 breast cancer cells and multi-xenobiotic resistance (MXR) in mussel (Mytilus edulis) blood cells (MBC) are well known mechanisms that contribute to the decrease in intracellular concentrations of many unrelated but cytotoxic compounds. In the present work, we have carried out comparative investigations of the MDR/ MXR protective mechanisms using a rapid colorimetric assay for cell viability and calcein accumulation for MDR/MXR activities. These studies were performed using cultured MCF7 and MBC before and after in vitro exposure to xenobiotics. Our results indicate that a 5-day exposure to doxorubicin or vincristine decreased calcein accumulation in MBC which is consistent with an induction of multi-xenobiotic resistance. The increase in calcein accumulation provoked by 1-h treatment with 50 muM verapamil was much lower in MBC when compared to the P-glycoprotein overexpressing MCF7 cell line. We conclude that such microplate assays could be used in primary cultures of MBC to estimate the effects of various chemicals on MXR activity. 

L4 ANSWER 24 OF 65 DISSABS COPYRIGHT (C) 2007 ProQuest Information and Learning Company; All Rights Reserved on STN

ACCESSION NUMBER: 2004:27661 DISSABS Order Number: AAIMQ83314
TITLE: Effets de l'epifaune sur la production de moules bleues ( Mytilus edulis) en aquaculture (French text)
AUTHOR: LeBlanc, Angeline [M.Sc.]; Landry, Thomas [advisor]; Miron, Gilles [advisor]
CORPORATE SOURCE: Universite de Moncton (Canada) (1111)

SOURCE: Masters Abstracts International, (2003) Vol. 42, No. 2, p. 539. Order No.: AAIMQ83314. 52 pages.
ISBN: 0-612-83314-3.
DOCUMENT TYPE: Dissertation
FILE SEGMENT: MAI
LANGUAGE: French
ENTRY DATE: Entered STN: 20040429
Last Updated on STN: 20040429

AB There has been a steady rise in production and value of the aquaculture industry on Prince Edward Island (PEI). While the blue mussel (Mytilus edulis) represents the most important cultured species, the meat yield has decreased at certain sites over the years.

Growers perceive epifauna as a problem because it competes with mussels for food and space. In some years, there are massive colonisations of foulers that can contribute to major losses on mussel farms. For this reason, the industry is trying to find ways to control such fouling. The most commonly used method to limit fouling in PEI consists of letting socks touch the sea bottom anywhere from a few days to several weeks, when they are dragged down due to the increasing weight of the mussels. They are then buoyed up again so that they are suspended in the water column. The approach is based on the belief that rock crabs (Cancer irroratus) consume or dislodge the foulers.

A study was conducted in Tracadie Bay, PEI in 2001 to assess the effectiveness of this method. (Abstract shortened by UMI.)

L4 ANSWER 25 OF 65 USPATFULL on STN DUPLICATE 5
ACCESSION NUMBER: 2003:100094 USPATFULL
TITLE: Methods and compositions based on inhibition of cell invasion and fibrosis by anionic polymers
INVENTOR(S): Roufa, Dikla, St. Louis, MO, UNITED STATES
Harel, Adrian, Woodmere, OH, UNITED STATES
Frederickson, Robert C.A., Seattle, WA, UNITED STATES
Coker, George T., III, Mountain View, CA, UNITED STATES
PATENT ASSIGNEE(S): Gliatech Inc., Beachwood, OH (U.S. corporation)

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 2003069205 | A1 | 20030410 |
| | US 6756362 | B2 | 20040629 |
| APPLICATION INFO.: | US 2002-138705 | A1 | 20020506 (10) |

RELATED APPLN. INFO.: Continuation of Ser. No. US 1999-476158, filed on 30 Dec 1999, GRANTED, Pat. No. US 6417173 Continuation of Ser. No. US 1999-388825, filed on 1 Sep 1999, GRANTED, Pat. No. US 6127348 Division of Ser. No. US 1995-469560, filed on 6 Jun 1995, GRANTED, Pat. No. US 6020326 Continuation of Ser. No. US 1991-708660, filed on 31 May 1991, GRANTED, Pat. No. US 5605938
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Pennie & Edmonds LLP, 1155 Avenue of the Americas, New York, NY, 10036-2711
NUMBER OF CLAIMS: 95
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Page(s)
LINE COUNT: 1897
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to the discovery that biocompatible anionic polymers can effectively inhibit fibrosis, scar formation, and surgical adhesions. The invention is predicated on the discovery that anionic polymers effectively inhibit invasion of cells associated with detrimental healing processes, and in particular, that the effectiveness of an anionic polymer at inhibiting cell invasion correlates with the

anionic charge density of the polymer. Thus the present invention provides a large number of materials for use in methods of inhibiting fibrosis and fibroblast invasion. Anionic polymers for use in the invention include but are not limited to natural proteoglycans, and the glycosaminoglycan moieties of proteoglycans. Additionally, anionic carbohydrates and other anionic polymers may be used. The anionic polymers dextran sulfate and pentosan polysulfate are preferred. In a more preferred embodiment, dextran sulfate, in which the sulfur content is greater than about 10% by weight, may be used. In a more preferred embodiment, the average molecular weight is about 40,000 to 500,000 Daltons. The present invention provides compositions and methods to inhibit fibrosis and scarring associated with surgery. The invention further provides compositions and methods to inhibit glial cell invasion, detrimental bone growth and neurite outgrowth. In a preferred embodiment, the inhibitory compositions further comprise an adhesive protein.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 26 OF 65 USPATFULL on STN

ACCESSION NUMBER: 2003:93795 USPATFULL

TITLE: Novel human genes and gene expression products I

INVENTOR(S): Williams, Lewis T., Mill Valley, CA, UNITED STATES
Escobedo, Jaime, Alamo, CA, UNITED STATES
Innis, Michael A., Moraga, CA, UNITED STATES
Garcia, Pablo Dominguez, San Francisco, CA, UNITED STATES
Sudduth-Klinger, Julie, Kensington, CA, UNITED STATES
Reinhard, Christoph, Alameda, CA, UNITED STATES
Giese, Klause, San Francisco, CA, UNITED STATES
Randazzo, Filippo, Emeryville, CA, UNITED STATES
Kennedy, Giulia C., San Francisco, CA, UNITED STATES
Pot, David, San Francisco, CA, UNITED STATES
Kassam, Atlaf, Oakland, CA, UNITED STATES
Lamson, George, Moraga, CA, UNITED STATES
Drmanac, Radoje, Palo Alto, CA, UNITED STATES
Crkvenjakov, Radomir, Sunnyvale, CA, UNITED STATES
Dickson, Mark, Hollister, CA, UNITED STATES
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Labat, Ivan, Sunnyvale, CA, UNITED STATES
Leshkowitz, Dena, Sunnyvale, CA, UNITED STATES
Kita, David, Foster City, CA, UNITED STATES
Garcia, Veronica, Sunnyvale, CA, UNITED STATES
Jones, Lee William, Sunnyvale, CA, UNITED STATES
Stache-Crain, Birgit, Sunnyvale, CA, UNITED STATES

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 2003065156 | A1 | 20030403 |
| APPLICATION INFO.: | US 2002-76555 | A1 | 20020215 (10) |

RELATED APPLN. INFO.: Continuation of Ser. No. US 1998-217471, filed on 21 Dec 1998, PENDING

| | NUMBER | DATE |
|---|---|---|
| PRIORITY INFORMATION: | US 1997-68755P | 19971223 (60) |
| | US 1998-80664P | 19980403 (60) |
| | US 1998-105234P | 19981021 (60) |

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: BOZICEVIC, FIELD & FRANCIS LLP, 200 MIDDLEFIELD RD, SUITE 200, MENLO PARK, CA, 94025

NUMBER OF CLAIMS: 22

EXEMPLARY CLAIM: 1

LINE COUNT: 15408
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention relates to novel human polynucleotides and variants thereof, their encoded polypeptides and variants thereof, to genes corresponding to these polynucleotides and to proteins expressed by the genes. The invention also relates to diagnostic and therapeutic agents employing such novel human polymucleotides, their corresponding genes or gene products, e.g., these genes and proteins, including probes, antisense constructs, and antibodies.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 27 OF 65 USPATFULL on STN
ACCESSION NUMBER: 2003:309014 USPATFULL
TITLE: Dynamic protein signature assay
INVENTOR(S): Bradley, Brian P., Ellicott City, MD, United States
PATENT ASSIGNEE(S): University of Maryland, Baltimore, MD, United States (U.S. corporation)

| | NUMBER | KIND | DATE | |
|---|---|---|---|---|
| PATENT INFORMATION: | US 6653135 | B1 | 20031125 | |
| APPLICATION INFO.: | US 2000-661399 | | 20000913 | (9) |

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Smith, Lynette R. F.
ASSISTANT EXAMINER: Hines, JaNa
LEGAL REPRESENTATIVE: Piper Rudnick LLP, Kelber, Steven B.
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 8 Drawing Figure(s); 8 Drawing Page(s)
LINE COUNT: 922
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB An assay to determine the specific expression and suppression of proteins in response to a stressor is disclosed. An organism exposed to a stressor, including disease caused by exposure to, e.g., a parasite, or a substance suspected of causing an adverse effect, is assayed to determine a first set of proteins expressed and a second set of proteins suppressed in response to the stressor. The amount of each protein expressed and the amount of each protein suppressed can be statistically analyzed to determine which proteins are most useful in diagnosing the stressor. A protein profile for a first stressor can be compared to protein profiles for a second stressor, a third stressor, etc. A distinct protein expression signature (PES) for the first stressor can be identified by determining subsets fo proteins expressed and/or suppressed only in response to the first stressor. The quantified set of proteins can then be used as a template for comparison to the protein expression signature of a biological sample to determine if the organism has been exposed to the stressor.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 28 OF 65 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:864107 CAPLUS
DOCUMENT NUMBER: 140:7918
TITLE: Congener-Based Aroclor Quantification and Speciation Techniques: A Comparison of the Strengths, Weaknesses, and Proper Use of Two Alternative Approaches
AUTHOR(S): Sather, Paula J.; Newman, John W.; Ikonomou, Michael G.
CORPORATE SOURCE: Department of Fisheries and Oceans, Marine Environmental Quality Section, Institute of Ocean Sciences, Sidney, BC, V8L 4B2, Can.
SOURCE: Environmental Science and Technology (2003), 37(24),

5678-5686
CODEN: ESTHAG; ISSN: 0013-936X
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Two previously published methods, an Aroclor estimation method and a mixing model method, which relate Aroclor pollution to congener-specific data in environmental samples were compared. The Aroclor estimation method, consistent with USEPA Method 8082, uses a limited set of congener-specific data to estimate Aroclor contributions to the sample; the mixing model method uses full congener data to model sample compns. as linear combinations of Aroclors. Performance of these methods was compared, using 181 samples from a variety of trophic levels, in terms of: total polychlorinated biphenyl (PCB) concns.; compositional modification levels from original Aroclors; and determination of the Aroclor mixture or mixts. best describing the sample (Aroclor speciation). Results showed the 2 methods agreed in all 3 terms for samples from low trophic levels, but disagreed for samples from higher tropic levels. Most significantly, the comparison showed systematic over-estimation of total PCB content by the Aroclor estimation method for samples at high trophic levels. The implication is that Aroclor detns. using persistent congeners cannot reliably be used as surrogates for total PCB concentration Strengths and weaknesses of each method are detailed.
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 29 OF 65 PASCAL COPYRIGHT 2007 INIST-CNRS. ALL RIGHTS RESERVED. on STN
ACCESSION NUMBER: 2003-0331790 PASCAL
COPYRIGHT NOTICE: Copyright .COPYRGT. 2003 INIST-CNRS. All rights reserved.
TITLE (IN ENGLISH): Polychlorinated dibenzofurans/dibenzo-p-dioxins (PCDF/PCDDs) and other dioxin-like substances in marine organisms from the Grenland fjords, S. Norway, 1975-2001: present contamination levels, trends and species specific accumulation of PCDF/PCDD congeners
AUTHOR: KNUTZEN Jon; BJERKENG Birger; NAES Kristoffer; SCHLABACH Martin
CORPORATE SOURCE: Norwegian Institute for Water Research (NIVA), P.O. Box 173 Kjelsas, 041 Oslo, Norway; Norwegian Institute for Air Research (NILU), P.O. Box 100, 2027 Kjeller, Norway
SOURCE: Chemosphere : (Oxford), (2003), 52(4), 745-760, refs. 1 p.3/4
ISSN: 0045-6535 CODEN: CMSHAF
DOCUMENT TYPE: Journal
BIBLIOGRAPHIC LEVEL: Analytic
COUNTRY: United Kingdom
LANGUAGE: English
AVAILABILITY: INIST-15565, 354000111196590100
AN 2003-0331790 PASCAL
CP Copyright .COPYRGT. 2003 INIST-CNRS. All rights reserved.
AB Discharge of WHO toxicity equivalents (TEQs) of PCDF/PCDDs to Frierfjorden, Norway has been reduced from an estimated sum of 50-100 kg in the period 1951-1975 to about 6-7 kg in 1976-1990, and further to about 20 g for 1991-2000. In accordance with this, the yearly monitoring since 1987 has shown considerably decreasing contamination in organisms, first highly significant in all indicator species from 1990 to 1991, then levelling off. Present concentrations thus are still high. Compared with estimated "high background" (reference) concentrations of 10 ng TEQ.sub.P.sub.C.sub.D.sub.F.sub./.sub.P.sub.C.sub.D.sub.D/kg w.w. in liver of cod and in hepatopancreas ("brown meat") of crabs, Frierfjord samples in 2001 were about 60 and 70 times higher, respectively. With

considerable uncertainty due to large fluctuations, the rate of yearly decrease for TEQ.sub.P.sub.C.sub.D.sub.F.sub./.sub.P.sub.C.sub.D.sub.D in cod liver 1991-2001 has been calculated to 10-12%. A hypothetic target value of 50 ng TEQ/kg w.w. will not be reached until 2015-2020, possibly even later. Including contributions from dioxin-like PCBs and PCNs, the weekly maximum tolerable amount of cod liver and crab hepatopancreas from Frierfjorden in 2001 were about 2-3 g. Multivariate analysis of PCDF/PCDD congener profiles in four fish species, mussels and crabs resulted in five distinct groups, separating four of the species and grouping the remaining two together, hence demonstrating examples of species specific accumulation characteristics.

L4 ANSWER 30 OF 65 AQUASCI 
ACCESSION NUMBER: 2003:55649 AQUASCI
DOCUMENT NUMBER: ASFA1 2003
TITLE: Identification of fouling organisms covering mussel lines and impact of a common defouling method on the abundance of foulers in Tracadie Bay, Prince Edward Island.
AUTHOR: LeBlanc, A.R.; Landry, T.; Miron, G.
CORPORATE SOURCE: Universite de Moncton, Moncton, NB (Canada) Dep. de Biolog.;Department of Fisheries and Oceans Canada, Moncton, NB (Canada) Oceans and Sci. Br.
SOURCE: Can. Tech. Rep. Fish. Aquat. Sci./Rapp. Tech. Can. Sci. Halieut. Aquat., (20030000) 25 pp.
ISSN: 0706-6457.
DOCUMENT TYPE: Report
FILE SEGMENT: ASFA1
LANGUAGE: English
SUMMARY LANGUAGE: English; French
AB Mussel growers are constantly searching for the most effective and profitable ways to reduce fouling on their mussel lines. In Prince Edward Island, they allow the socks to touch the bottom so that rock crabs (Cancer irroratus) may climb on them and dislodge or consume some of the fouling. After a few weeks, the socks are resuspended in the water column. A study was undertaken in summer and fall 2001 to verify the effectiveness of this method in reducing the abundance of foulers. This study also identified the species of foulers present in Tracadie Bay (P.E.I.) in relation to the season. The results showed that the main foulers were the ascidian Molgula sp., red algae, mussel spat, the gastropod Crepidula fornicata, crustaceans (e.g. caprellids, gammarids) and the bryozoan Bugula turrita. Fouling community composition varied over time. Foulers first appeared in July; by August, the most common fouler was Molgula sp. Its biomass declined as the season progressed while mussel spat increased in biomass until it became the dominant species in December. The results also showed that the method was not effective for reducing fouling. However, it had a significant effect on mussel growth. Mussels that underwent this treatment were longer and heavier than mussels that were not in contact with the bottom; however their condition indices were lower. The results of this study suggest that the method of defouling does not effectively reduce fouling. A study on the competition between mussels and foulers, however, shows that the impact of foulers on mussels is not as great as perceived by growers.

L4 ANSWER 31 OF 65 USPATFULL on STN DUPLICATE 6
ACCESSION NUMBER: 2002:273548 USPATFULL
TITLE: Alloferons - immunomodulatory peptides
INVENTOR(S): Kim, Soo In, Seoul, KOREA, REPUBLIC OF
Chernysh, Sergey Ivanovich, St. Petersburg, RUSSIAN FEDERATION
Bekker, German Petrovich, Essen, GERMANY, FEDERAL REPUBLIC OF

Makhaldiani, Natalia Borisovna, Moscow, RUSSIAN FEDERATION
Hoffman, Jules, Strasbourg, FRANCE
Bulet, Philippe, Vendenhem, FRANCE

| | NUMBER | KIND | DATE | |
|---|---|---|---|---|
| PATENT INFORMATION: | US 2002151679 | A1 | 20021017 | |
| | US 6692747 | B2 | 20040217 | |
| APPLICATION INFO.: | US 2000-748114 | A1 | 20001227 | (9) |

| | NUMBER | DATE |
|---|---|---|
| PRIORITY INFORMATION: | RU 1999-12772504 | 19991227 |

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HELLER EHRMAN WHITE & MCAULIFFE LLP, 1666 K STREET,NW, SUITE 300, WASHINGTON, DC, 20006
NUMBER OF CLAIMS: 16
EXEMPLARY CLAIM: 1
LINE COUNT: 1208
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention belongs to the field of biologically active peptides specifically stimulating antiviral, antimicrobial and antitumor activity of the human and animal immune system.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 32 OF 65 USPATFULL on STN
ACCESSION NUMBER: 2002:206990 USPATFULL
TITLE: Medical prosthetic devices and implants having improved biocompatibility
INVENTOR(S): Ellingsen, Jan Eirik, Bekkestua, NORWAY
Lyngstadaas, Staale Petter, Nesoddtangen, NORWAY
PATENT ASSIGNEE(S): BIOTI AS, Nesoddtangen, NORWAY, N-1450 (non-U.S. corporation)

| | NUMBER | KIND | DATE | |
|---|---|---|---|---|
| PATENT INFORMATION: | US 2002111694 | A1 | 20020815 | |
| APPLICATION INFO.: | US 2001-10140 | A1 | 20011206 | (10) |

| | NUMBER | DATE | |
|---|---|---|---|
| PRIORITY INFORMATION: | DK 2000-1829 | 20001206 | |
| | US 2000-254987P | 20001212 | (60) |

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: LAHIVE & COCKFIELD, 28 STATE STREET, BOSTON, MA, 02109
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1
LINE COUNT: 1134
AB A medical prosthetic device or medical implant containing a metal material (A) selected from the group consisting of titanium or an alloy thereof, zirconium or an alloy thereof, tantalum or an alloy thereof, hafnium or an alloy thereof, niobium or an alloy thereof and a chromium-vanadium alloy, wherein surface parts of the metal material (A) are coated with a layer of a corresponding hydride material (B) selected from titanium hydride, zirconium hydride, tantalum hydride, hafnium hydride, niobium hydride and chromium and/or vanadium hydride, respectively, said device or implant being characterized in that the layer of hydride material (B) comprises one or more biomolecule substances (C) associated therewith. The device or implant exhibits improved biocompatibility. The metal material (A) is preferably

titanium.

The biomolecule substance (C) may be selected from the following types of substances: Natural or recombinant bio-adhesives; natural or recombinant cell attachment factors; natural, recombinant or synthetic biopolymers; natural or recombinant blood proteins; natural or recombinant enzymes; natural or recombinant extracellular matrix proteins; natural or synthetic extracellular matrix biomolecules; natural or recombinant growth factors and hormones; natural, recombinant or synthetic peptide hormones; natural, recombinant or synthetic deoxyribonucleic acids; natural, recombinant or synthetic ribonucleic acids; natural or recombinant receptors; enzyme inhibitors; drugs; biologically active anions and cations; vitamins; adenosine monophosphate (AMP), adenosine diphosphate (ADP) or adenosine triphosphate (ATP); marker biomuolecules; amino acids; fatty acids; nucleotides (RNA and DNA bases); and sugars.

L4 ANSWER 33 OF 65 USPATFULL on STN

| | |
|---|---|
| ACCESSION NUMBER: | 2002:168212 USPATFULL |
| TITLE: | Methods and compositions based on inhibition of cell invasion and fibrosis by anionic polymers |
| INVENTOR(S): | Roufa, Dikla, St. Louis, MO, United States<br>Harel, Adrian, Woodmere, OH, United States<br>Frederickson, Robert C. A., Bentleyville, OH, United States<br>Coker, III, George T., Mountain View, CA, United States |
| PATENT ASSIGNEE(S): | Gliatech, Inc., Beachwood, OH, United States (U.S. corporation) |

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 6417173 | B1 | 20020709 |
| APPLICATION INFO.: | US 1999-476158 | | 19991230 (9) |

RELATED APPLN. INFO.: Continuation of Ser. No. US 1999-388825, filed on 1 Sep 1999, now patented, Pat. No. US 6127348 Division of Ser. No. US 1995-469560, filed on 6 Jun 1995, now patented, Pat. No. US 6020326 Continuation of Ser. No. US 1991-708660, filed on 31 May 1991, now patented, Pat. No. US 5605938

| | |
|---|---|
| DOCUMENT TYPE: | Utility |
| FILE SEGMENT: | GRANTED |
| PRIMARY EXAMINER: | Wilson, James O. |
| LEGAL REPRESENTATIVE: | Pennie & Edmonds LLP |
| NUMBER OF CLAIMS: | 48 |
| EXEMPLARY CLAIM: | 1 |
| NUMBER OF DRAWINGS: | 22 Drawing Figure(s); 13 Drawing Page(s) |
| LINE COUNT: | 1621 |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to the discovery that biocompatible anionic polymers can effectively inhibit fibrosis, scar formation, and surgical adhesions. The invention is predicated on the discovery that anionic polymers effectively inhibit invasion of cells associated with detrimental healing processes, and in particular, that the effectiveness of an anionic polymer at inhibiting cell invasion correlates with the anionic charge density of the polymer. Thus the present invention provides a large number of materials for use in methods of inhibiting fibrosis and fibroblast invasion. Anionic polymers for use in the invention include but are not limited to natural proteoglycans, and the glycosaminoglycan moieties of proteoglycans. Additionally, anionic carbohydrates and other anionic polymers may be used. The anionic polymers dextran sulfate and pentosan polysulfate are preferred. In a more preferred embodiment, dextran sulfate, in which the sulfur content is greater than about 10% by weight, may be used. In a more preferred

embodiment, the average molecular weight is about 40,000 to 500,000 Daltons. The present invention provides compositions and methods to inhibit fibrosis and scarring associated with surgery. The invention further provides compositions and methods to inhibit glial cell invasion, detrimental bone growth and neurite outgrowth. In a preferred embodiment, the inhibitory compositions further comprise an adhesive protein.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 34 OF 65 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2007) on STN DUPLICATE 7

ACCESSION NUMBER: 2002:61252 AGRICOLA
DOCUMENT NUMBER: IND23287867
TITLE: Determination of mercury in seafood by flow injection-cold vapor atomic absorption spectrometry after microwave digestion: NMKL interlaboratory study.
AUTHOR(S): Julshamn, K.; Brenna, J.
AVAILABILITY: DNAL (S583.A7)
SOURCE: Journal of AOAC International, May/June 2002. Vol. 85, No. 3. p. 626-631
Publisher: Gaithersburg, MD : AOAC International.
CODEN: JAINEE; ISSN: 1060-3271
NOTE: Includes references
PUB. COUNTRY: Maryland; United States
DOCUMENT TYPE: Article
FILE SEGMENT: U.S. Imprints not USDA, Experiment or Extension
LANGUAGE: English

AB Ten laboratories participated in an interlaboratory method -performance (collaborative) study of a method for the determination of mercury in foods of marine origin by flow injection-cold vapor atomic absorption spectrometry after wet digestion using a microwave oven technique. The study was preceded by a training round of samples of known identity. The method was tested on a total of 7 seafood products: blue mussel (Mytilus edulis), cod muscle (Gadus morhua), crab (Cancer pagurus), scampi (Nephrops norwegicus), black scabbard fish (Aphnopus carbo), longnose velvet dogfish (Centroscymus crepidater), and Portuguese dogfish (Cenbroscymus coelolepis) with mercury concentrations of 0.14, 0.24, 0.35, 0.59, 1.42, 4.2, and 13.2 microgram/g, respectively. The materials were presented to the participants in the study as blind duplicates, and the participants were asked to perform single determinations on each sample. Repeatability relative standard deviations (RSD(r)) for mercury ranged from 2.4 to 14.0%. Reproducibility relative standard deviations (RSD(R)) ranged from 7.7 to 16.6%. HORRAT values for all samples were <1.0.

L4 ANSWER 35 OF 65 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2007) on STN DUPLICATE 8

ACCESSION NUMBER: 2002:10745 AGRICOLA
DOCUMENT NUMBER: IND23247117
TITLE: Determination and confirmation of the amnesic shellfish poisoning toxin, domoic acid, in shellfish from Scotland by liquid chromatography and mass spectrometry.
AUTHOR(S): Hess, P.; Gallacher, S.; Bates, L.A.; Brown, N.; Quilliam, M.A.
SOURCE: Journal of AOAC International, Sept/Oct 2001. Vol. 84, No. 5. p. 1657-1667
Publisher: Gaithersburg, MD : AOAC International.
CODEN: JAINEE; ISSN: 1060-3271

NOTE: In the special section: Phycotoxins in seafood and drinking water. Paper presented at the 113th AOAC International Annual Meeting and Exposition held September 26-30, 1999, Houston, Texas.
Includes references
PUB. COUNTRY: Maryland; United States
DOCUMENT TYPE: Article
FILE SEGMENT: U.S. Imprints not USDA, Experiment or Extension
LANGUAGE: English

AB During 1998 and early 1999, shellfish samples from sites in Scotland were found to contain the amnesic shellfish poisoning toxin, domoic acid (DA). Two different techniques, liquid chromatography (LC) with UV diode-array detection and LC with mass spectrometric (MS) detection, were used to detect and confirm DA in shellfish extracts. The LC/UV method was validated for routine monitoring by recovery experiments on spiked mussel and scallop tissues with a certified mussel tissue used as reference material. Crude extracts of selected samples as well as extracts cleaned with strong anion exchange (SAX) were analyzed by both LC/UV and LC/MS. Good correlation (linear regression r2 = 0.996, slope = 0.93) between the 2 methods was found for cleaned extracts. Analyses of crude extracts by LC/UV produced false-positive results in 2 crab samples, whereas LC/MS analyses gave accurate results. It was concluded that LC/UV is a valid approach for routine monitoring of DA in shellfish when cleanup is performed with a SAX cartridge to prevent false positives. A variety of shellfish species were surveyed for DA content, including Pecten maximus (king scallops), Chlamys opercularis (queen scallop), Mytilus edulis (blue mussels ), Cancer pugaris (crab), and Ensis ensis (razor fish). The highest concentration of DA was 105 microgram/g in Pecten maximus.

L4 ANSWER 36 OF 65 USPATFULL on STN
ACCESSION NUMBER: 2000:131820 USPATFULL
TITLE: Methods and compositions based on inhibition of cell invasion and fibrosis by anionic polymers
INVENTOR(S): Roufa, Dikla, St. Louis, MO, United States
Harel, Adrian, Woodmere, OH, United States
Frederickson, Robert C. A., Seattle, WA, United States
Coker, III, George T., Mountain View, CA, United States
PATENT ASSIGNEE(S): Gliatech, Inc., Beachwood, OH, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 6127348 | | 20001003 |
| APPLICATION INFO.: | US 1999-388825 | | 19990901 (9) |

RELATED APPLN. INFO.: Division of Ser. No. US 1995-469560, filed on 6 Jun 1995 which is a continuation of Ser. No. US 1991-708660, filed on 31 May 1991, now patented, Pat. No. US 5605938
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Wilson, James O.
LEGAL REPRESENTATIVE: Pennie & Edmonds LLP
NUMBER OF CLAIMS: 5
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 22 Drawing Figure(s); 13 Drawing Page(s)
LINE COUNT: 1678
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to the discovery that biocompatible anionic polymers can effectively inhibit fibrosis, scar formation, and surgical adhesions. The invention is predicated on the discovery that anionic polymers effectively inhibit invasion of cells associated with detrimental healing processes, and in particular, that the effectiveness of an anionic polymer at inhibiting cell invasion correlates with the

anionic charge density of the polymer. Thus the present invention provides a large number of materials for use in methods of inhibiting fibrosis and fibroblast invasion. Anionic polymers for use in the invention include but are not limited to natural proteoglycans, and the glycosaminoglycan moieties of proteoglycans. Additionally, anionic carbohydrates and other anionic polymers may be used. The anionic polymers dextran sulfate and pentosan polysulfate are preferred. In a more preferred embodiment, dextran sulfate, in which the sulfur content is greater than about 10% by weight, may be used. In a more preferred embodiment, the average molecular weight is about 40,000 to 500,000 Daltons. The present invention provides compositions and methods to inhibit fibrosis and scarring associated with surgery. The invention further provides compositions and methods to inhibit glial cell invasion, detrimental bone growth and neurite outgrowth. In a preferred embodiment, the inhibitory compositions further comprise an adhesive protein.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 37 OF 65 USPATFULL on STN
ACCESSION NUMBER: 2000:131638 USPATFULL
TITLE: Molluscan ligament polypeptides and genes encoding them
INVENTOR(S): Bayley, Hagan, 1800 Springbrook Estates Dr., College Station, TX, United States 77845
Cao, Qiuping, 15 Sandpiper Dr., Shrewsbury, MA, United States 01545
Wang, Yunjuan, 4300 Boyett St., Bryan, TX, United States 77801

| | NUMBER | KIND | DATE | |
|---|---|---|---|---|
| PATENT INFORMATION: | US 6127166 | | 20001003 | |
| APPLICATION INFO.: | US 1997-963168 | | 19971103 | (8) |

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Prouty, Rebecca E.
ASSISTANT EXAMINER: Monshipouri, M.
LEGAL REPRESENTATIVE: Fish & Richardson P.C.
NUMBER OF CLAIMS: 22
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)
LINE COUNT: 2008
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention provides substantially pure abductin protein and polypeptides, polypeptides composed of multiple repeats of the glycine-rich repeat sequences of abductin, and hybrid polypeptides containing an abductin polypeptide linked to another protein or polypeptide, e.g., an elastin or fibroin (silk) polypeptide, as well as nucleic acids encoding these polypeptides. The abductin polypeptides and their derivatives can be used in the manufacture of a broad range of biomaterials ranging from light-weight durable fabric for clothing to matrices useful for human tissue and organ prostheses.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 38 OF 65 USPATFULL on STN
ACCESSION NUMBER: 2000:84271 USPATFULL
TITLE: Methods and compositions based on inhibition of cell invasion and fibrosis by anionic polymers
INVENTOR(S): Roufa, Dikla, St. Louis, MO, United States
Harel, Adrian, Woodmere, OH, United States
Frederickson, Robert C. A., Bentleyville, OH, United States
PATENT ASSIGNEE(S): Gliatech Inc., Beachwood, OH, United States (U.S.

corporation)

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 6083930 | | 20000704 |
| APPLICATION INFO.: | US 1995-471990 | | 19950606 (8) |

RELATED APPLN. INFO.: Continuation of Ser. No. US 1991-708660, filed on 31 May 1991, now patented, Pat. No. US 5605938
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Wilson, James O.
LEGAL REPRESENTATIVE: Pennie & Edmonds LLP
NUMBER OF CLAIMS: 19
EXEMPLARY CLAIM: 1,2
NUMBER OF DRAWINGS: 22 Drawing Figure(s); 13 Drawing Page(s)
LINE COUNT: 1969
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to the discovery that biocompatible anionic polymers can effectively inhibit fibrosis, scar formation, and surgical adhesions. The invention is predicated on the discovery that anionic polymers effectively inhibit invasion of cells associated with detrimental healing processes, and in particular, that the effectiveness of an anionic polymer at inhibiting cell invasion correlates with the anionic charge density of the polymer. Thus the present invention provides a large number of materials for use in methods of inhibiting fibrosis and fibroblast invasion. Anionic polymers for use in the invention include but are not limited to natural proteoglycans, and the glycosaminoglycan moieties of proteoglycans. Additionally, anionic carbohydrates and other anionic polymers may be used. The anionic polymers dextran sulfate and pentosan polysulfate are preferred. In a more preferred embodiment, dextran sulfate, in which the sulfur content is greater than about 10% by weight, may be used. In a more preferred embodiment, the average molecular weight is about 40,000 to 500,000 Daltons. The present invention provides compositions and methods to inhibit fibrosis and scarring associated with surgery. The invention further provides compositions and methods to inhibit glial cell invasion, detrimental bone growth and neurite outgrowth. In a preferred embodiment, the inhibitory compositions further comprise an adhesive protein.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 39 OF 65 USPATFULL on STN
ACCESSION NUMBER: 2000:12789 USPATFULL
TITLE: Method for inhibition of bone growth by anionic polymers
INVENTOR(S): Roufa, Dikla, St. Louis, MO, United States
Harel, Adrian, Woodmere, OH, United States
Frederickson, Robert C.A., Bentleyville, OH, United States
Coker, III, George T., Mountain View, CA, United States
PATENT ASSIGNEE(S): Gliatech Inc., Beachwood, OH, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 6020326 | | 20000201 |
| APPLICATION INFO.: | US 1995-469560 | | 19950606 (8) |

RELATED APPLN. INFO.: Continuation of Ser. No. US 1991-708660, filed on 31 May 1991
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Wilson, James O.
LEGAL REPRESENTATIVE: Pennie & Edmonds LLP

NUMBER OF CLAIMS: 17
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 22 Drawing Figure(s); 13 Drawing Page(s)
LINE COUNT: 1983
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to the discovery that biocompatible anionic polymers can effectively inhibit fibrosis, scar formation, and surgical adhesions. The invention is predicated on the discovery that anionic polymers effectively inhibit invasion of cells associated with detrimental healing processes, and in particular, that the effectiveness of an anionic polymer at inhibiting cell invasion correlates with the anionic charge density of the polymer. Thus the present invention provides a large number of materials for use in methods of inhibiting fibrosis and fibroblast invasion. Anionic polymers for use in the invention include but are not limited to natural proteoglycans, and the glycosaminoglycan moieties of proteoglycans. Additionally, anionic carbohydrates and other anionic polymers may be used. The anionic polymers dextran sulfate and pentosan polysulfate are preferred. In a more preferred embodiment, dextran sulfate, in which the sulfur content is greater than about 10% by weight, may be used. In a more preferred embodiment, the average molecular weight is about 40,000 to 500,000 Daltons. The present invention provides compositions and methods to inhibit fibrosis and scarring associated with surgery. The invention further provides compositions and methods to inhibit glial cell invasion, detrimental bone growth and neurite outgrowth. In a preferred embodiment, the inhibitory compositions further comprise an adhesive protein.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 40 OF 65 USPATFULL on STN
ACCESSION NUMBER: 1999:155708 USPATFULL
TITLE: Methods and compositions based on inhibition of cell invasion and fibrosis by anionic polymers
INVENTOR(S): Roufa, Dikla, St. Louis, MO, United States
Harel, Adrian, Woodmere, OH, United States
Frederickson, Robert C. A., Bentleyville, OH, United States
Coker, III, George T., Mountain View, CA, United States
PATENT ASSIGNEE(S): Gliatech Inc., Beachwood, OH, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 5994325 | | 19991130 |
| APPLICATION INFO.: | US 1995-470092 | | 19950606 (8) |

RELATED APPLN. INFO.: Continuation of Ser. No. US 1991-708660, filed on 31 May 1991, now patented, Pat. No. US 5605938
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Wilson, James O.
LEGAL REPRESENTATIVE: Pennie & Edmonds LLP
NUMBER OF CLAIMS: 12
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Figure(s); 13 Drawing Page(s)
LINE COUNT: 1951
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to the discovery that biocompatible anionic polymers can effectively inhibit fibrosis, scar formation, and surgical adhesions. The invention is predicated on the discovery that anionic polymers effectively inhibit invasion of cells associated with detrimental healing processes, and in particular, that the effectiveness of an anionic polymer at inhibiting cell invasion correlates with the anionic charge density of the polymer. Thus the present invention

provides a large number of materials for use in methods of inhibiting fibrosis and fibroblast invasion. Anionic polymers for use in the invention include but are not limited to natural proteoglycans, and the glycosaminoglycan moieties of proteoglycans. Additionally, anionic carbohydrates and other anionic polymers may be used. The anionic polymers dextran sulfate and pentosan polysulfate are preferred. In a more preferred embodiment, dextran sulfate, in which the sulfur content is greater than about 10% by weight, may be used. In a more preferred embodiment, the average molecular weight is about 40,000 to 500,000 Daltons. The present invention provides compositions and methods to inhibit fibrosis and scarring associated with surgery. The invention further provides compositions and methods to inhibit glial cell invasion, detrimental bone growth and neurite outgrowth. In a preferred embodiment, the inhibitory compositions further comprise an adhesive protein.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 41 OF 65 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 2000:93730 BIOSIS
DOCUMENT NUMBER: PREV200000093730
TITLE: Enhancement of the response of rock crabs, Cancer irroratus, to prey odors following feeding experience.
AUTHOR(S): Ristvey, Andrew; Rebach, Steve [Reprint author]
CORPORATE SOURCE: Department of Natural Sciences, University of Maryland Eastern Shore, Princess Anne, MD, 21853, USA
SOURCE: Biological Bulletin (Woods Hole), (Dec., 1999) Vol. 197, No. 3, pp. 361-367. print.
CODEN: BIBUBX. ISSN: 0006-3185.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 10 Mar 2000
Last Updated on STN: 3 Jan 2002

AB The rock crab, Cancer irroratus Say, uses chemically mediated learning in the search for food. Rock crabs are opportunistic benthic predators and scavengers. Observations indicate that although they eat a variety of items, they are more sensitive to, and prefer, odors of food items that they have been eating. We found that C. irroratus is more responsive to a familiar food source than to an unfamiliar one and can distinguish between the odors of two different prey after being fed one species for an extended time. Initial preferences for two mytilid bivalves, Mytilus edulis and Geukensia demissa, were determined in a Y-maze. Crabs were then fed only one of the mussel species for 28 days and retested, using sequential and simultaneous presentations, for their responses to familiar and unfamiliar prey odors. Crabs increased their responses to familiar prey odors, but not to unfamiliar odors. In foraging tests, crabs ate M. edulis more often regardless of the species to which they had been familiarized.

L4 ANSWER 42 OF 65 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 9

ACCESSION NUMBER: 1999:383321 BIOSIS
DOCUMENT NUMBER: PREV199900383321
TITLE: Analyses of tissues of eight marine species from Atlantic and Pacific coasts for dioxin-like chlorobiphenyls (CBs) and total CBs.
AUTHOR(S): Ylitalo, G. M. [Reprint author]; Buzitis, J.; Krahn, M. M.
CORPORATE SOURCE: National Marine Fisheries Service, Northwest Fisheries Science Center, Environmental Conservation Division, United States Department of Commerce, National Oceanic and Atmospheric Administration, 2725 Montlake Blvd. East, Seattle, WA, 98112-2097, USA
SOURCE: Archives of Environmental Contamination and Toxicology,

(Aug., 1999) Vol. 37, No. 2, pp. 205-219. print.
CODEN: AECTCV. ISSN: 0090-4341.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 13 Sep 1999
Last Updated on STN: 13 Sep 1999

AB Eight commercially and recreationally important marine species were collected in 1993 and 1994 from several Atlantic and Pacific coastal regions of the contiguous United States. Approximately 700 edible tissue samples (e.g., whole body of mussel, crustacean muscle and hepatopancreas, and fish muscle) were analyzed for dioxin-like chlorobiphenyls (CBs) and other selected CB congeners using a rapid high-performance liquid chromatography photodiode array detection method (HPLC/PDA). Total CBs and toxic equivalents (TEQs) of dioxin-like CBs were also determined. The most abundant congeners measured in these tissues were the moderately chlorinated CBs (e.g., CB 138, 153), with mean concentrations ranging from below the limits of detection (approximately 0.2 ng/g) to 1,500 ng/g, wet weight. Certain dioxin-like CBs (e.g., CBs 77, 105, 118, 126) were also found in several of these samples (mean concentrations ranging from below the limits of detection (approximately 0.4 ng/g) to 680 ng/g). Similar to previous studies, the majority of seafood tissues contained total CB concentrations that were below the U.S. Food and Drug Administration's (FDA) tolerance limit for CBs of 2,000 ng/g, wet weight (2.0 ppm). Furthermore, the majority of samples that contained CB levels below the FDA CB tolerance limit also had CB TEQs that were lower than the FDA's advisory level for TCDD (25 ppt or 25 pg/g, wet weight) in fish from the Great Lakes, which is used in evaluating CB TEQs. Several crustacean hepatopancreas samples collected from certain Atlantic and Pacific urban sites (e.g., Dungeness crab from Elliott Bay in Puget Sound, WA, American lobster from Deer Island in Boston Harbor, MA), however, did contain total CB and CB TEQs that exceeded the FDA CB tolerance and TCDD advisory limits. Mono-ortho- (e.g., CBs 118, 105) and non-ortho-substituted congeners (e.g., CBs 77 and 126) were the largest contributors to the CB TEQs of the hepatopancreas samples that exceeded the action limit.

L4 ANSWER 43 OF 65 USPATFULL on STN
ACCESSION NUMBER: 1998:111778 USPATFULL
TITLE: Method of screening physiological samples for elevated levels of heat shock proteins
INVENTOR(S): Sanders, Brenda M., Long Beach, CA, United States
Jenkins, Kenneth D., Long Beach, CA, United States
Nichols, Jack L., Vancouver, Canada
Imber, Bryan E., Victoria, Canada
PATENT ASSIGNEE(S): StressGen Biotechnology Corporation, Victoria, Canada (non-U.S. corporation)
CA. State University, Long Beach Foundation, Long Beach, CA, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 5807690 | | 19980915 |
| APPLICATION INFO.: | US 1995-425448 | | 19950420 (8) |

RELATED APPLN. INFO.: Continuation of Ser. No. US 1991-764015, filed on 23 Sep 1991, now patented, Pat. No. US 5464750 which is a continuation-in-part of Ser. No. US 1989-404401, filed on 12 Sep 1989, now patented, Pat. No. US 5232833 which is a continuation-in-part of Ser. No. US 1988-244757, filed on 14 Sep 1988, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Achutamurthy, Ponnathapura
ASSISTANT EXAMINER: Bakalyar, Heather A.
LEGAL REPRESENTATIVE: Seed and Berry LLP

NUMBER OF CLAIMS: 13
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 14 Drawing Figure(s); 11 Drawing Page(s)
LINE COUNT: 1509
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB METHOD OF SCREENING PHYSIOLOGICAL SAMPLES for elevated levels of heat shock proteins due to chronic exposure to sublethal levels of stressors, and kits for carrying out the method, are disclosed. The methods comprise: conducting first and second assays at different times, each assay comprising: (a) sampling by removing a physiological sample from the organism under sampling conditions that do not induce a heat shock protein response in the organism; (b) measuring the concentration in the sample of at least one heat shock protein selected from the group consisting of hsp 20-30, hsp 60, hsp 70, hsp 90 and ubiquitin; and (c) comparing the heat shock protein concentrations measured in the first and second assays and considering the organism to have been chronically exposed to one or more stressors if the concentrations are at least about 2 times above a baseline heat shock protein concentration corresponding to an unstressed physiological sample and the measured concentrations do not vary more than about 50% one from the other. The invention also provides methods for medically screening for biological damage due to chronic of an organism to a stressor by the above method and then comparing the measured concentration of hsp to a predetermined standard calibration curve which correlates hsp concentration with physiological impairment of growth or reproductive processes, and kits for carrying out the methods.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 44 OF 65 USPATFULL on STN
ACCESSION NUMBER: 1998:82548 USPATFULL
TITLE: Accumulation of heat shock proteins for evaluating biological damage due to chronic exposure of an organism to sublethal levels of stressors
INVENTOR(S): Sanders, Brenda M., Long Beach, CA, United States
Jenkins, Kenneth D., Long Beach, CA, United States
Nichols, Jack L., West Vancouver, Canada
Imber, Bryan E., Victoria, Canada
PATENT ASSIGNEE(S): StressGen Biotechnology Corporation, Victoria, Canada (non-U.S. corporation)
CA. State University, Long Beach Foundation, Long Beach, CA, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 5780246 | | 19980714 |
| APPLICATION INFO.: | US 1995-425377 | | 19950420 (8) |

RELATED APPLN. INFO.: Continuation of Ser. No. US 1991-764015, filed on 23 Sep 1991, now patented, Pat. No. US 5464750 which is a continuation-in-part of Ser. No. US 1989-404401, filed on 12 Sep 1989, now patented, Pat. No. US 5232833 which is a continuation-in-part of Ser. No. US 1988-244757, filed on 14 Sep 1988, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Achutamurthy, Ponnathapura
ASSISTANT EXAMINER: Bakalyar, Heather A.
LEGAL REPRESENTATIVE: Seed and Berry LLP
NUMBER OF CLAIMS: 13
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 14 Drawing Figure(s); 11 Drawing Page(s)
LINE COUNT: 1527
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Method of detecting chronic exposure of an organism to a stressor, and for evaluating biological damage due to chronic exposure to sublethal levels of stressors and kits for carrying out the method are disclosed. The methods comprise: (a) sampling at least one organism in order to determine whether it has been chronically exposed to a sublethal concentration of one or more stressors in its environment, under sampling conditions that do not induce any additional heat shock protein (hsp) response in the organism; (b) obtaining a sample of cells or secretions of said organism, suspected of having elevated levels of heat shock proteins and solubilizing the heat shock proteins in the sample; and (c) measuring the concentration of a heat shock protein in said sample. The invention also provides methods for evaluating biological damage due to chronic exposure to a sublethal concentration of one or more stressors comprising detecting chronic exposure of the organism by the above method and then comparing the measured concentration of hsp to a predetermined standard calibration curve which correlates hsp concentration with physiological impairment of growth or reproductive processes, and kits for carrying out the methods.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 45 OF 65 USPATFULL on STN

| | |
|---|---|
| ACCESSION NUMBER: | 1998:1471 USPATFULL |
| TITLE: | Methods and compositions based on inhibition of cell invasion and fibrosis by anionic polymers |
| INVENTOR(S): | Roufa, Dikla, St. Louis, MO, United States<br>Harel, Adrian, Nes-Ziona, Israel<br>Frederickson, Robert C. A., Cleveland, OH, United States<br>Coker, III, George T., Mountain View, CA, United States |
| PATENT ASSIGNEE(S): | Gliatech, Inc., Beachwood, OH, United States (U.S. corporation) |

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 5705178 | | 19980106 |
| APPLICATION INFO.: | US 1993-164266 | | 19931208 (8) |
| RELATED APPLN. INFO.: | Continuation-in-part of Ser. No. US 1994-150185, filed on 26 Jul 1994 which is a continuation-in-part of Ser. No. US 1991-708660, filed on 31 May 1991, now patented, Pat. No. US 5605938 | | |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | Granted | | |
| PRIMARY EXAMINER: | Kishore, Gollamudi S. | | |
| LEGAL REPRESENTATIVE: | Pennie & Edmonds | | |
| NUMBER OF CLAIMS: | 7 | | |
| EXEMPLARY CLAIM: | 1 | | |
| NUMBER OF DRAWINGS: | 31 Drawing Figure(s); 16 Drawing Page(s) | | |
| LINE COUNT: | 2539 | | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to the discovery that biocompatible anionic polymers can effectively inhibit fibrosis, scar formation, and surgical adhesions. Anionic polymers for use in the invention include but are not limited to natural proteoglycans, and the glycosaminoglycan moieties of proteoglycans. Additionally, anionic carbohydrates and other anionic polymers may be used. The anionic polymers dextran sulfate and pentosan polysulfate are preferred. In a more preferred embodiment, dextran sulfate, in which the sulfur content is greater than about 10% by weight, may be used. In a more preferred embodiment, the average molecular weight is about 40,000 to 500,000 Daltons. The present invention further provides compositions and methods to inhibit glial cell invasion, detrimental bone growth and neurite outgrowth. In a preferred embodiment, the inhibitory compositions further comprise an

adhesive protein.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 46 OF 65 USPATFULL on STN
ACCESSION NUMBER: 1998:1470 USPATFULL
TITLE: Methods and compositions based on inhibition of cell invasion and fibrosis by anionic polymers
INVENTOR(S): Roufa, Dikla, St. Louis, MO, United States
Harel, Adrian, Nes-Ziona, Israel
Frederickson, Robert C. A., Seattle, WA, United States
Coker, III, George T., Mountain View, CA, United States
PATENT ASSIGNEE(S): Gliatech Inc., Beachwood, OH, United States (U.S. corporation)

| | NUMBER | KIND | DATE | |
|---|---|---|---|---|
| PATENT INFORMATION: | US 5705177 | | 19980106 | |
| | WO 9221354 | | 19921210 | |
| APPLICATION INFO.: | US 1994-150185 | | 19940726 | (8) |
| | WO 1992-US4474 | | 19920529 | |
| | | | 19940726 | PCT 371 date |
| | | | 19940726 | PCT 102(e) date |

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1991-708660, filed on 31 May 1991, now patented, Pat. No. US 5605938
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Kishore, Gollamudi S.
LEGAL REPRESENTATIVE: Pennie & Edmonds
NUMBER OF CLAIMS: 28
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 22 Drawing Figure(s); 13 Drawing Page(s)
LINE COUNT: 2123
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to the discovery that biocompatible anionic polymers can effectively inhibit fibrosis, scar formation, and surgical adhesions. The invention is predicated on the discovery that anionic polymers effectively inhibit invasion of cells associated with detrimental healing processes, and in particular, that the effectiveness of an anionic polymer at inhibiting cell invasion correlates with the anionic charge density of the polymer. Thus the present invention provides a large number of materials for use in methods of inhibiting fibrosis and fibroblast invasion. Anionic polymers for use in the invention include but are not limited to natural proteoglycans, and the glycosaminoglycan moieties of proteoglycans. Additionally, anionic carbohydrates and other anionic polymers may be used. The anionic polymers dextran sulfate and pentosan polysulfate are preferred. In a more preferred embodiment, dextran sulfate, in which the sulfur content is greater than about 10% by weight, may be used. In a more preferred embodiment, the average molecular weight is about 40,000 to 500,000 Daltons. The present invention provides compositions and methods to inhibit fibrosis and scarring associated with surgery. The invention further provides compositions and methods to inhibit glial cell invasion, detrimental bone growth and neurite outgrowth. In a preferred embodiment, the inhibitory compositions further comprise an adhesive protein.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 47 OF 65 USPATFULL on STN
ACCESSION NUMBER: 97:68448 USPATFULL
TITLE: Tissue destruction in cryosurgery by use of thermal hysteresis
INVENTOR(S): Rubinsky, Boris, Albany, CA, United States

Koushafar, Amir-Homayoon, Richmond, CA, United States
PATENT ASSIGNEE(S): The Regents of the University of California, Oakland, CA, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 5654279 | | 19970805 |
| APPLICATION INFO.: | US 1996-625074 | | 19960329 (8) |

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Russel, Jeffrey E.
ASSISTANT EXAMINER: Carroll, Kathleen
LEGAL REPRESENTATIVE: Townsend and Townsend and Crew LLP
NUMBER OF CLAIMS: 14
EXEMPLARY CLAIM: 1
LINE COUNT: 679
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Cell and tissue destruction by cryoablation is enhanced by the perfusion of the cells with thermal hysteresis proteins prior to the cryogenic freezing. The effect of the proteins is to promote the growth of spicular ice crystals in the intracellular fluid which destroy the cell by piercing the cell membrane. This decreases the incidence of cell preservation by freezing, thereby permitting a more uniform and controllable destruction of undesirable tissue by the cryoablation technique.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 48 OF 65 USPATFULL on STN
ACCESSION NUMBER: 97:16093 USPATFULL
TITLE: Methods and compositions for inhibition of cell invasion and fibrosis using dextran sulfate
INVENTOR(S): Roufa, Dikla, St. Louis, MO, United States
Harel, Adrian, Woodmere, OH, United States
Frederickson, Robert C. A., Bentleyville, OH, United States
Coker, III, George T., Mayfield Heights, OH, United States
PATENT ASSIGNEE(S): Gliatech, Inc., Beachwood, OH, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 5605938 | | 19970225 |
| APPLICATION INFO.: | US 1991-708660 | | 19910531 (7) |

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Robinson, Douglas W.
ASSISTANT EXAMINER: Wilson, James
LEGAL REPRESENTATIVE: Pennie & Edmonds
NUMBER OF CLAIMS: 50
EXEMPLARY CLAIM: 1,5
NUMBER OF DRAWINGS: 22 Drawing Figure(s); 13 Drawing Page(s)
LINE COUNT: 2006
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to the discovery that biocompatible anionic polymers can effectively inhibit fibrosis, scar formation, and surgical adhesions. The invention is predicated on the discovery that anionic polymers effectively inhibit invasion of cells associated with detrimental healing processes, and in particular, that he effectiveness of an anionic polymer at inhibiting cell invasion correlates with the anionic charge density of the polymer. Thus the present invention provides a large number of materials for use in methods of inhibiting fibrosis and fibroblast invasion. Anionic polymers for use in

the invention include but are not limited to natural proteoglycans, and the glycosaminoglycan moieties of proteoglycans. Additionally, anionic carbohydrates and other anionic polymers may be used. The anionic polymers dextran sulfate and pentosan polysulfate are preferred. In a more preferred embodiment, dextran sulfate, in which the sulfur content is greater than about 10% by weight, may be used. In a more preferred embodiment, the average molecular weight is about 40,000 to 500,000 Daltons. The present invention provides compositions and methods to inhibit fibrosis and scarring associated with surgery. The invention further provides compositions and methods to inhibit glial cell invasion, detrimental bone growth and neurite outgrowth. In a preferred embodiment, the inhibitory compositions further comprise an adhesive protein.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 49 OF 65 BIOENG COPYRIGHT 2007 CSA on STN
ACCESSION NUMBER: 2004350806 BIOENG
DOCUMENT NUMBER: 4243332
TITLES: Confirmation of domoic acid as an N-formyl-O-methyl derivative in shellfish tissues by gas chromatography/mass spectrometry
AUTHOR: Hadley, SW; Braun, SK; Wekell, MM
CORPORATE SOURCE: U.S. Food and Drug Admin., Seafood Products Res. Cent., Bothell, USA
SOURCE: Editor(s): Shahidi, F; Jones, Y; Kitts, DD (eds) Seafood safety, processing, and biotechnology. pp. 25-32. 1997.
Published by: TECHNOMIC PUBLISHING COMPANY, INC., LANCASTER, PA (USA)
ISBN: 1566765730
DOCUMENT TYPE: Book
LANGUAGE: English
SUMMARY LANGUAGE: English
OTHER SOURCE: ASFA 1: Biological Sciences & Living Resources; Toxicology Abstracts; ASFA Marine Biotechnology Abstracts; Microbiology Abstracts C: Algology, Mycology & Protozoology
AN 2004350806 BIOENG
AB Domoic acid (DA) is a potent neurotoxic amino acid which has been established as the agent responsible for amnesic shellfish poisoning (ASP). Beginning in the fall of 1991, DA was discovered in anchovies, razor clams and Dungeness crabs harvested from the west coast of the United States. A surveillance program for DA in shellfish was initiated by the responsible regulatory agencies which successfully managed the situation. Routine determination of DA is accomplished using HPLC with ultraviolet (UV) detection. In the present study we describe a complementary method for confirmation of DA in shellfish. In the method, DA is isolated from crude methanol/water tissue extracts by solid phase extraction using a strong cation exchange column. Conversion of DA into the corresponding volatile N-formyl-O-methyl derivative is accomplished in a single reaction step by treatment with dimethylformamide dimethyl acetal. The resulting derivative can be analyzed by gas chromatography/mass spectrometry (GC/MS) using widely available benchtop instrumentation. The derivative of DA affords a mass spectrum with several diagnostic ions useful for selected ion monitoring. The method can confirm DA in razor clam (Siliqua patula), blue mussels (Mytilus edulis), and Dungeness crab (Cancer magister) tissues to below the current regulatory action levels.

L4 ANSWER 50 OF 65 SCISEARCH COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 1997:475902 SCISEARCH

THE GENUINE ARTICLE: XF572
TITLE: A new method for the removal of toxic metal ions from acid-sensitive biomaterial
AUTHOR: Seki H (Reprint); Suzuki A
CORPORATE SOURCE: HOKKAIDO UNIV, FAC FISHERIES, DEPT MARINE BIORESOURCES CHEM, MINATO CHO 3-1-1, HAKODATE, HOKKAIDO 041, JAPAN (Reprint)
COUNTRY OF AUTHOR: JAPAN
SOURCE: JOURNAL OF COLLOID AND INTERFACE SCIENCE, (1 JUN 1997) Vol. 190, No. 1, pp. 206-211. ISSN: 0021-9797.
PUBLISHER: ACADEMIC PRESS INC JNL-COMP SUBSCRIPTIONS, 525 B ST, STE 1900, SAN DIEGO, CA 92101-4495.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: PHYS
LANGUAGE: English
REFERENCE COUNT: 20
ENTRY DATE: Entered STN: 1997
Last Updated on STN: 1997
*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*

AB A new method (competitive adsorption method) for the removal of toxic heavy metals from acid-sensitive biomaterials was proposed and it was applied to the removal of cadmium from the mid-gut gland (MG) of scallop, Patinopecten yessoensis. Insolubilized humic acid, which has been developed in our laboratory, was used as a competitive adsorbent. A metal-complexation model was used to determine the adsorption characteristics of cadmium onto MG. Furthermore, the model was applied to the competitive adsorption system. The results showed that the competitive adsorption method enabled the simultaneous removal of toxic cadmium from both liquid and RIG phase under mild acidic condition (pH 5). (C) 1997 Academic Press.

L4 ANSWER 51 OF 65 AQUASCI COPYRIGHT 2007 FAO (On behalf of the ASFA Advisory Board). All rights reserved. on STN DUPLICATE 10
ACCESSION NUMBER: 1998:24028 AQUASCI
DOCUMENT NUMBER: ASFA1 1998 28-11941
TITLE: Confirmation of domoic acid as an N-formyl-O-methyl derivative in shellfish tissues by gas chromatography/mass spectrometry
Seafood safety, processing, and biotechnology
AUTHOR: Hadley, S.W.; Braun, S.K.; Wekell, M.M.; Shahidi, F. [editor]; Jones, Y. [editor]; Kitts, D.D. [editor]
CORPORATE SOURCE: U.S. Food and Drug Admin., Seafood Products Res. Cent., Bothell, USA
SOURCE: (19970000) pp. 25-32. TECHNOMIC PUBLISHING COMPANY, INC.. LANCASTER, PA (USA).
DOCUMENT TYPE: Book
FILE SEGMENT: ASFA1
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Domoic acid (DA) is a potent neurotoxic amino acid which has been established as the agent responsible for amnesic shellfish poisoning (ASP). Beginning in the fall of 1991, DA was discovered in anchovies, razor clams and Dungeness crabs harvested from the west coast of the United States. A surveillance program for DA in shellfish was initiated by the responsible regulatory agencies which successfully managed the situation. Routine determination of DA is accomplished using HPLC with ultraviolet (UV) detection. In the present study we describe a complementary method for confirmation of DA in shellfish. In the method, DA is isolated from crude methanol/water tissue extracts by solid phase extraction using a strong cation exchange column. Conversion of DA into the corresponding volatile N-formyl-O-methyl derivative is accomplished in a single reaction step by treatment with dimethylformamide dimethyl acetal. The resulting derivative can be

analyzed by gas chromatography/mass spectrometry (GC/MS) using widely available benchtop instrumentation. The derivative of DA affords a mass spectrum with several diagnostic ions useful for selected ion monitoring. The method can confirm DA in razor clam (Siliqua patula), blue mussels (Mytilus edulis), and Dungeness crab ( Cancer magister) tissues to below the current regulatory action levels.

L4 ANSWER 52 OF 65 BIOENG COPYRIGHT 2007 CSA on STN DUPLICATE 11
ACCESSION NUMBER: 2004337532 BIOENG
DOCUMENT NUMBER: 3992490
TITLES: Survey of paralytic shellfish poison and domoic acid in Puget Sound predatory gastropods
AUTHOR: Wekell, JC; Lorenzana, RM; Hogan, M; Barnett, H
CORPORATE SOURCE: NOAA, NMFS, Northwest Fish. Sci. Cent., Utilization Res. Div., 2725 Montlake Blvd. East, Seattle, WA 98112, USA
SOURCE: Journal of Shellfish Research [J. Shellfish Res.], vol. 15, no. 2, pp. 231-236, Jun 1996
ISSN: 0077-5711
DOCUMENT TYPE: Journal
LANGUAGE: English
SUMMARY LANGUAGE: English
OTHER SOURCE: ASFA 1: Biological Sciences & Living Resources; Oceanic Abstracts; ASFA 3: Aquatic Pollution & Environmental Quality; ASFA Marine Biotechnology Abstracts; Microbiology Abstracts C: Algology, Mycology & Protozoology; Toxicology Abstracts; Water Resources Abstracts
AN 2004337532 BIOENG
AB Two predatory gastropods, moonsnails (Polinices lewissi) and frilled dogwinkles (Nucella lamellosa), were collected in the Puget Sound basin in the summer and fall of 1994 and in the spring of 1995. Analyses indicated the presence of paralytic shellfish poison (PSP) toxins in these gastropods in all sampling periods: however, no domoic acid was detected in any of the samples. Other species of molluscan shellfish and a species of crustacea, considered possible prey and/or indicators of PSP in the area, were also collected. In September 1994, levels of PSP in moonsnails collected from Agate Passage averaged 145 mu g of saxitoxin (STX) equivalents (equivalent)/100 g: butter clams taken from the same area at the same time averaged 73 mu g of STX equivalent/100 g. In October 1994, when a local monitoring station indicated the presence of PSP in Mystery Bay, a collection and PSP analyses of molluscan shellfish yielded the following average values: dogwinkle (N. lamellosa) averaged 72 mu g of STX equivalent /100 g; blue mussels (Mytilus edulis), 652 mu g of STX equivalent/100 g; Pacific oyster (Crassostrea gigas), 45 mu g of STX equivalent/100 g; northern horse mussel (Modiolus modiolus), 48 mu g of STX equivalent/100 g and snails (Searlesia dira), 50 mu g of STX equivalent /100 g. In April 1995, another collection and analyses of shellfish from Agate Passage showed that moonsnails averaged 48 mu g of STX equivalent/100 g, and butter clams (Saxidomus giganteus) averaged 35 mu g of STX equivalent/100 g (range, 0-77 mu g of STX equivalent/100 g); Pacific littleneck clams (Protothaca staminea) and red rock crab (Cancer productus) did not contain PSP toxin. Modifications of the sample preparation methods required for the analyses of samples are described.

L4 ANSWER 53 OF 65 USPATFULL on STN
ACCESSION NUMBER: 95:99063 USPATFULL
TITLE: Accumulation of heat shock proteins for evaluating biological damage due to chronic exposure of an organism to sublethal levels of pollutants
INVENTOR(S): Sanders, Brenda M., Long Beach, CA, United States
Jenkins, Kenneth D., Long Beach, CA, United States
Nichols, Jack L., Vancouver, Canada

| | |
|---|---|
| | Imber, Bryan E., Victoria, Canada |
| PATENT ASSIGNEE(S): | StressGen Biotechnology Corporation, Victoria, Canada (non-U.S. corporation)<br>Ca. State University Long Beach Foundation, Long Beach, CA, United States (U.S. corporation) |

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 5464750 | | 19951107 |
| APPLICATION INFO.: | US 1991-764015 | | 19910923 (7) |

| | |
|---|---|
| DISCLAIMER DATE: | 20100803 |
| RELATED APPLN. INFO.: | Continuation-in-part of Ser. No. US 1989-404401, filed on 12 Sep 1989, now patented, Pat. No. US 5232833 which is a continuation-in-part of Ser. No. US 1988-244757, filed on 14 Sep 1988, now abandoned |
| DOCUMENT TYPE: | Utility |
| FILE SEGMENT: | Granted |
| PRIMARY EXAMINER: | Scheiner, Toni R. |
| ASSISTANT EXAMINER: | Green, Lora M. |
| LEGAL REPRESENTATIVE: | Seed and Berry |
| NUMBER OF CLAIMS: | 9 |
| EXEMPLARY CLAIM: | 1 |
| NUMBER OF DRAWINGS: | 14 Drawing Figure(s); 11 Drawing Page(s) |
| LINE COUNT: | 1510 |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Method of detecting chronic exposure of an organism to a pollutant, and for evaluating biological damage due to chronic exposure to sublethal levels of pollutants and kits for carrying out the method are disclosed. The methods comprise:

(a) sampling at least one organism in order to determine whether it has been chronically exposed to a sublethal concentration of one or more pollutants in its environment, under sampling conditions that do not induce any additional heat shock protein (hsp) response in the organism;

(b) obtaining a sample of cells or secretions of said organism, suspected of having elevated levels of heat shock proteins and solubilizing the heat shock proteins in the sample; and

(c) measuring the concentration of a heat shock protein in said sample.

The invention also provides methods for evaluating biological damage due to chronic exposure to a sublethal concentration of one or more pollutants comprising detecting chronic exposure of the organism by the above method and then comparing the measured concentration of hsp to a predetermined standard calibration curve which correlates hsp concentration with physiological impairment of growth or reproductive processes, and kits for carrying out the methods.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 54 OF 65 AQUASCI  DUPLICATE 12

| | |
|---|---|
| ACCESSION NUMBER: | 95:4470 AQUASCI |
| DOCUMENT NUMBER: | ASFA3 1995 25-00970; ASFA1 1995 25-02010 |
| TITLE: | Salt clean-up procedure for the determination of domoic acid by HPLC |
| AUTHOR: | Hatfield, C.L.; Wekell, J.C.; Gauglitz, E.J.,Jr.; Barnett, H.J. |
| CORPORATE SOURCE: | USDC/NOAA/NMFS, Northwest Fish. Sci. Cent., Util. Res. Div., 2725 Montlake Blvd. E., Seattle, WA 98112, USA |
| SOURCE: | NAT. TOXINS, (1994) vol. 2, no. 4, pp. 206-211.<br>ISSN: 1056-9014. |
| DOCUMENT TYPE: | Journal |

FILE SEGMENT: ASFA3; ASFA1
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Domoic acid (DA) was first reported in mussels (Mytilus edulis) from Prince Edward Island, Canada, in 1987. It reappeared in anchovies and pelicans from Monterey Bay, California, in 1991. Later that year, domoic acid was found in razor clams (Siliqua patula) and Dungeness crabs (Cancer magister) along the Washington and Oregon coasts. Since the initial outbreak, a variety of analytical methods for the detection of this neurotoxin have been developed. Here, we describe a modification to the solid phase extraction (SPE) clean-up step in Quilliam's HPLC-UV method (1991: NRCC Number 33001). The standard 10% acetonitrile (MeCN) wash and 0.5M ammonium citrate buffer (ACB) in 10% MeCN (pH = 4.5) eluting solution have been replaced with a 0.1M sodium chloride (NaCl) in 10% MeCN wash and a 0.5M NaCl in 10% MeCN eluting solution. This modification allows the analysis to work equally well on both clam and crab viscera and meat. Chromatograms of visceral samples no longer contain interfering or late eluting peaks; and all chromatograms are free of the large solvent peak tailing associated with the ACB eluent. The newly modified method allows for an improved and more versatile domoic acid analysis.

L4 ANSWER 55 OF 65 USPATFULL on STN
ACCESSION NUMBER: 93:63079 USPATFULL
TITLE: Accumulation of heat shock proteins for evaluating biological damage due to chronic exposure of an organism to sublethal levels of pollutants
INVENTOR(S): Sanders, Brenda M., Long Beach, CA, United States
Jenkins, Kenneth D., Long Beach, CA, United States
Nichols, Jack L., Vancouver, Canada
Imber, Bryan E., Victoria, Canada
PATENT ASSIGNEE(S): Stressgen Biotechnologies Corporation, Canada (non-U.S. corporation)

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 5232833 | | 19930803 |
| APPLICATION INFO.: | US 1989-404401 | | 19890912 (7) |

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1988-244757, filed on 14 Sep 1988, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Rosen, Sam
LEGAL REPRESENTATIVE: Seed and Berry
NUMBER OF CLAIMS: 13
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Figure(s); 7 Drawing Page(s)
LINE COUNT: 1504
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Method of detecting chronic exposure of an organism to a pollutant, and for evaluating biological damage due to chronic exposure to sublethal levels of pollutants and kits for carrying out the method are disclosed. The methods comprise:

(a) sampling at least one organism in order to determine whether it has been chronically exposed to a sublethal concentration of one or more pollutants in its environment, under sampling conditions that do not induce any additional heat shock protein (hsp) response in the organism;

(b) obtaining a sample of cells or secretions of said organism, suspected of having elevated levels of heat shock proteins and solubilizing the heat shock proteins in the sample; and

(c) measuring the concentration of a heat shock protein selected from

hsp 70, hsp 60 and ubiquitin, in said sample.

The invention also provides methods for evaluating biological damage due to chronic exposure of the organism by the above method and then comparing the measured concentration of hsp to a predetermined standard calibration curve which correlates hsp concentration with physiological impairment of growth or reproductive processes, and kits for carrying out the methods.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 56 OF 65 USPATFULL on STN
ACCESSION NUMBER: 90:10891 USPATFULL
TITLE: Dispensing catheter and method
INVENTOR(S): Lemelson, Jerome H., 48 Parkside Dr., Princeton, NJ, United States 08540

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 4900303 | | 19900213 |
| APPLICATION INFO.: | US 1986-843990 | | 19860325 (7) |

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1984-636239, filed on 31 Jul 1984, now patented, Pat. No. US 4578061 which is a continuation of Ser. No. US 1980-201531, filed on 28 Oct 1980, now patented, Pat. No. US 4588395 which is a continuation-in-part of Ser. No. US 1978-885263, filed on 10 Mar 1978, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Truluck, Dalton L.
NUMBER OF CLAIMS: 10
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 18 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT: 1409
AB Medical catheters and methods are provided for dispensing and implanting materials and devices within the bodies of living beings. In one form, an implantable device or material is disposed within the operating head of a catheter which is caused to move through a body duct to a select location therein which location is detected either by externally scanning the body duct with radiation or ultrasonic energy or by viewing an image of the body duct adjacent the head of the catheter by means of a fiber optical viewing system including a fiber optic cable extending along the catheter. When properly located, a mechanical, electro-mechanical and/or fluidically operated mechanism in the head of the catheter is operated causing a select quantity of an implantable material or an implant to be forced from the head and caused to engage a select portion of the wall of the body duct and attach thereto to retain such implant or material in engagement therewith. In a particular form, attachment is effected by means of a biodegradeable adhesive which sets in situ per se or between the implant of implantable material and the tissue of the wall of the body duct. Thereafter the catheter is retracted and either completely removed from the wall of the body duct or is disposed at a second location and the procedure repeated with respect to a second implant or second quantity of material to be attached to the wall of the body duct.

L4 ANSWER 57 OF 65 CABA COPYRIGHT 2007 CABI on STN
ACCESSION NUMBER: 81:83540 CABA
DOCUMENT NUMBER: 19811420769
TITLE: Synopsis of biological data on the rock crab, Cancer irroratus Say
AUTHOR: Bigford, T. E. [EDITOR]
SOURCE: FAO Fisheries Synopsis, (1979) No. 123, pp. v + 26.

103 ref.
ISSN: 0014-5602
DOCUMENT TYPE: Book
LANGUAGE: English
ENTRY DATE: Entered STN: 1 Nov 1994
Last Updated on STN: 1 Nov 1994

AB Booklet is a synopsis of literature on biological and biochemical studies of rock crab (Cancer irroratus) published before early 1977 and some unpublished observations mainly from the USA Environment Protection Agency at Narragansett, R. I. It covers nomenclature, taxonomy, morphology, distribution, life history, population, exploitation, protection and management. It includes about half a page on nutrition, a page on growth and half a page on metabolism. Diet of rock crabs was mainly carnivorous, and the degree of cannibalism depended on population density and may have occurred only in the laboratory. Captive crabs ate chopped quahog (Mercenaria mercenaria) and mussel ( Mytilus edulis), fish and thawed adult brine shrimp (Artemia saline); in one report only papershell crabs, i.e., those in moult stages A2 and B1, accepted squid. Nutritive value of those foods to the crabs was not studied. From examinations of gut contents, wild crabs ate pelecypods such as mussel (Modiolus) with other animal and plant feeds. Maximum carapace widths reported were 141 mm for males and 106 mm for females off Virginia and 126 and 100 mm off Rhode Island. Regression equations are given for the relation between width and bodyweight of adult crabs. Oxygen consumption of larvae and adults is mentioned and a table gives concentration of 9 metals in whole body of adult crabs from unpolluted water. The sections on exploitation, protection and management refer to fishery for wild crabs. There was no information available on the culture of rock crabs, but there was a reference to a summary of methods used for hatching and maintaining larvae in the laboratory (Bigford (1977), Culture manual for the rock crab, Cancer irroratus Say. Unpublished manuscript 42 pp. USA, Environmental Protection Agency, Narragausett, RI 02882). M. Smith

L4 ANSWER 58 OF 65 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 1979:262434 BIOSIS
DOCUMENT NUMBER: PREV197968064938; BA68:64938
TITLE: UBI QUINONE ANALYSES IN FISH TISSUES AND IN SOME MARINE INVERTEBRATES.
AUTHOR(S): FARBU T [Reprint author]; LAMBERTSEN G
CORPORATE SOURCE: DIR FISH, INST VITAMIN RES, PO BOX 187, N 5001 BERGEN, NORW
SOURCE: Comparative Biochemistry and Physiology B, (1979) Vol. 63, No. 3, pp. 395-398.
CODEN: CBPBB8. ISSN: 0305-0491.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

AB Ubiquinone contents were determined in species of marine invertebrates [horse mussel (Modiolus modiolus), blue mussel ( Mytilus edulis), crab (Cancer pagurus), sea urchin (Echinus acutus) and starfish (Asterias rubens)] and in heart, red and white muscle and liver of 3 species of fish [mackerel (Scomber scombrus), saithe (Pollachius virens) and halibut (Hippoglossus hippoglossus)]. Three different methods of determination were compared based on spectrophotometry, reduction and a reaction with the dimethoxy groups of ubiquinone. Using ubiquinone homolog 6-10 prepared from beef heart and commercially avialable microorganism (single celled protein) as standards, ubiquinone (Q) 10 was found in all samples. Minor amounts of Q-9 were found in samples of saithe heart and red muscle. Less than 10 mg/kg wet wt of ubiquinone was found in the samples of marine invertebrates and in white muscle and liver of the fish samples, with 1 exception: 40 mg/kg was found in a sample of mackerel liver. Higher

contents of ubiquinone were found in fish heart and red muscle tissues, ranging from 24-116 mg/kg wet weight The ubiquinone contents were comparable in the 2 tissues. A test on cellular fragments of red muscle tissue of saithe showed that the ubiquinone was concentrated in the mitochondrial fraction.

L4 ANSWER 59 OF 65 OCEAN COPYRIGHT 2007 CSA on STN
ACCESSION NUMBER: 79:3535 OCEAN
DOCUMENT NUMBER: 80-01638
TITLE: Ubiquinone analyses in fish tissues and in some marine invertebrates.
AUTHOR: Fabru, T.; Lambertsen, G.
CORPORATE SOURCE: Directorate of Fisheries, Inst. of Vitamin Research, P.O. Box 187, N-5001 Bergen, Norway
SOURCE: COMPARATIVE BIOCHEMISTRY AND PHYSIOLOGY (B), (1979) Vol. 63B, No. 3, pp. 0305-0491.
CODEN: CBPBB8; ISSN: 0305-0491.
DOCUMENT TYPE: Journal
TREATMENT CODE: Experimental
FILE SEGMENT: DCOA
LANGUAGE: English
AB Ubiquinone (a coenzyme which functions as an electron transfer agent in the Kreb's cycle) contents were determined in species of marine invertebrates-mussels Modiolus modiolus, Mytilus edulis, crab Cancer pagurus, sea urchin Echinus acutus, and starfish Asteria rubens-and in heart, red and white muscle and liver of mackerel Scomber scombrus, saithe Pallachius virens, and halibut Hippoglossus hippoglossus. Three different methods of determination were compared, based on spectrophotometry, reduction, and a reaction with the dimethoxy groups of ubiquinone. Using ubiquinone homologues 6-10 prepared from beef heart and commercially available microorganisms as standards, ubiquinone 10 was found in all samples. Minor amounts of Q-9 were also found in samples of saithe heart and red muscle. Less than 10 mg/kg wet wt of ubiquinone was found in the samples of marine invertebrates and in white muscle and liver of the fish samples, with the exception of 40 mg/kg found in a sample of mackerel liver. Higher contents of ubiquinone were found in fish heart and red muscle tissues, ranging from 24 to 116 mg/kg wet weight The ubiquinone contents were comparable in the 2 tissues. A test on cellular fragments of red muscle tissue of saithe showed that the ubiquinone was concentrated in the mitochondria fraction.

L4 ANSWER 60 OF 65 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 13
ACCESSION NUMBER: 1980:1125 CAPLUS
DOCUMENT NUMBER: 92:1125
TITLE: Fluorometric studies on the toxins of Gonyaulax tamarensis and Aphanizomenon flosaquae
AUTHOR(S): Shoptaugh, Nancy Higlev
CORPORATE SOURCE: Dep. Biochem., Univ. New Hampshire, Durham, NH, USA
SOURCE: Report (1978), W79-07254, OWRT-A-047-NH(1); Order No. PB-296723, 214 pp. Avail.: NTIS
From: Gov. Rep. Announce. Index (U. S.) 1979, 79(18), 83
DOCUMENT TYPE: Report
LANGUAGE: English
AB A rapid, sensitive method for determining shellfish toxin in clams, Mya arenaria, and mussels, Mytilus edulis, was developoed and methods applicable for toxin detection in A. flos-aquae and in crabs, Cancer irroratus, were devised. Fluorometric techniques for the detection of saxitoxin (STX) [35523-89-8] on thin-layer chromatog. were more specific and 100 times more sensitive than many of the guanidine colorimetric reactions on thin-layer chromatog. The oxidation of STX with alkaline H2O2 followed by acidification produced a solution fluorophor with an excitation of 332 nm and an emission of 381 nm.

The solution fluorometric assay quantitated ≥0.005-0.01 μg STX.
Reaction pH, temperature, time, and H2O2 concentration, as well as exposure to external
light and various ions, purines, and proteins had an effect on the fluorescence intensity of the STX fluorophor. The alkaline H2O2 oxidation of A.
flos-aquae exts. produced a fluorophor with 330 nm excitation and 380 nm emission maximum The temperature-time profile of the Aphanizomenon fluorophor indicated that it showed a greater temperature sensitivity than the STX fluorophor. The pigmentation present in the solution fluorometric assay produced varied results that did not correlate consistently with the mouse bioassay. The Aphanizomenon toxin fluorophor applied to and eluted from the strong cation exchange column showed a behavior similar to the STX fluorophor. The application of the column fluorometric procedure to the quantitation of Aphanizomenon toxin yielded values comparable to the mouse bioassay using a STX standard

L4 ANSWER 61 OF 65 NTIS COPYRIGHT 2007 NTIS on STN
ACCESSION NUMBER: 1979(39):08257
NTIS ORDER NUMBER: PB-296 723/0/XAB
TITLE: Fluorometric Studies on the Toxins of 'Gonyaulax Tamarensis' and 'Aphanizomenon Flos-Aquae'. Master's thesis.
AUTHOR: Shoptaugh, N. H.
CORPORATE SOURCE: New Hampshire Univ., Durham. Dept. of Biochemistry. Sponsor: Office of Water Research and Technology, Washington, DC.
NUMBER OF REPORT: PB-296 723/0/XAB; W79; OWRT; 07254,; A-047-NH(1) 214p; Sep 1978
NUMBER OF CONTRACT: DI-14-34-0001-7062
OWRT-A-047-NH
CONTROLLED TERM: Dissertation
COUNTRY: United States
LANGUAGE: English
AVAILABILITY: Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)605-6900; and email at orders@ntis.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.
NTIS Prices: PC A10/MF A01
OTHER SOURCE: GRA&I7918
AB The major objective was to develop a rapid, sensitive method for determining shellfish toxin content in clams, Mya arenaria, and mussels, Mytilus edulis, and to devise
methods applicable for toxin detection in A. flos-aquae and in crabs, Cancer irroratus. Fluorometric techniques for detection of saxitoxin (STX) on thin-layer chromatography were shown to be more specific and 100 times more sensitive than many of the guanidine colorimetric reactions on thin-layer chromatography. The oxidation of STX with alkaline hydrogen peroxide followed by acidification produced a solution fluorophor with an excitation of 332 nm and an emission of 381 nm. The solution fluorometric assay quantitated as little as 0.005 to 0.01 ug STX. Reaction pH, temperature, time, and hydrogen peroxide concentration, as well as exposure to external light and various ions, purines, and proteins had an effect on the fluorescence intensity of the STX fluorophor. The alkaline hydrogen peroxide oxidation of A. flos-aquae extracts produced a fluorophor with 330 nm excitation and 380 nm emission maxima. The temperature-time profile of the Aphanizomenon fluorophor indicated that it showed a greater temperature sensitivity than the STX fluorophor. The pigmentation present in the solution fluorometric assay produced varied results that did not correlate consistently with the mouse bioassay. The Aphanizomenon toxin fluorophor applied to and eluted from the strong cation exchange column showed a behavior similar to the STX fluorophor. The application of the column

fluorometric procedure to the quantitation of Aphanizomenon toxin yielded values comparable to the mouse bioassay using a STX standard.

L4 ANSWER 62 OF 65 NTIS COPYRIGHT 2007 NTIS on STN
ACCESSION NUMBER: 1972(34):09471
NTIS ORDER NUMBER: COM-72-10041/XAB
TITLE: Culture Methods and Effects of Temperature and Salinity on Survival and Growth of Dungeness Crab ('Cancer magister') Larvae in the Laboratory. Reprint: Culture Methods and Effects of Temperature and Salinity on Survival and Growth of Dungeness Crab ('Cancer magister') Larvae in the Laboratory.
AUTHOR: Reed, P. H.
CORPORATE SOURCE: Oregon Fish Commission, Newport. Research Div.
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AB Recent interest in causes of Dungeness crab (Cancer magister) population fluctuations led to a study of temperature and salinity effects on survival and growth of zoeae. Preliminary work developed methods for culturing larvae in flasks with good survival. A comparison of survival of larvae fed two different diets showed the naupli of the barnacle Balanus glandula and larvae of the bay mussel Mytilus edulis were suitable and unsuitable food organisms, respectively. (Author)

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TITLES: DETERMINATION OF RESIDUAL FUEL OIL CONTAMINATION OF AQUATIC ANIMALS
AUTHOR: ZITKO, V
CORPORATE SOURCE: FISHERIES RESEARCH BOARD OF CANADA, ST. ANDREWS (NEW BRUNSWICK). BIOLOGICAL STATION
SOURCE: BULLETIN OF ENVIRONMENTAL CONTAMINATION AND TOXICOLOGY, VOL 5, NO 6, P 559-564, SEPTEMBER/OCTOBER 1971. 1 FIG, 1 TAB, 15 REF.
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AB A SIMPLE SPECTROFLUOROMETRIC METHOD FOR THE QUANTITATIVE DETERMINATION OF HEAVY RESIDUAL FUEL OIL (BUNKER C) IN AQUATIC ANIMALS IS DESCRIBED. HEXANE EXTRACTS OF ANIMAL TISSUE WITH AN ABSORBANCE NOT GREATER THAN 0.001 AT 300 NM (1 CM CELL) WERE ANALYZED AND THE MAXIMUM FLUORESCENCE EMISSION SPECTRUM OF BUNKER C OIL AT 360 NM WAS USED TO CALCULATE THE BUNKER C OIL CONCENTRATION IN THE TISSUES. TABULAR DATA ARE PRESENTED TO VERIFY THE CONCLUSION THAT AQUATIC ANIMALS DO TAKE UP LARGE QUANTITIES OF BUNKER C OIL AND DISTRIBUTE IT THROUGHOUT THE TISSUES. THIS METHOD DETERMINES ONLY THE FLUORESCENT FRACTION OF THE OIL AND GIVES NO DATA ON THE BIOLOGICALLY INERT ALIPHATIC FRACTION. IT IS SUITABLE FOR THE DETERMINATION OF THE GENERAL PATTERNS OF UPTAKE, EXCRETION AND METABOLISM OF BUNKER C OIL IN AQUATIC ANIMALS. FURTHER STUDY IS REQUIRED TO DETERMINE THE FATE OF THE OIL IN THE ANIMALS AND IN THE FOOD CHAIN. (HOLOMAN-BATTELLE)